ORDER NO VRD9008M157

Service Manual

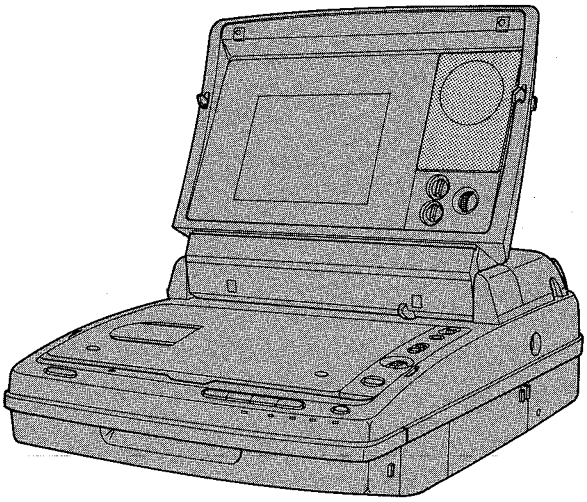
General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

Portable TV with Video

Panasonic VHS
PAL

Hi-Fi HQ

NV-FV1E/B



SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: DC 12V	
	CONSUMPTION: 14 watts (Playback)	
RECORDING SYSTEM	4 rotary heads, helical scanning system	
	PAL	
TV TUNER SYSTEM	NV-FV1E	VHF: CH2~CH12 (PAL B) (CHA~CHH2: Only for Italy) 75Ω unbalanced UHF: CH21~CH69 (PAL G) 75Ω unbalanced
	NV-FV1B	UHF: CH21~CH69 (PAL I) 75Ω unbalanced (VHS: CH2~CH12 (PAL B) 75Ω unbalanced)
VIDEO	HEADS: 4 rotary heads, 1 flying erase head	
	INPUT: VIDEO IN Connector (Phono type) 1.0Vp-p, 75Ω terminated	
	OUTPUT: VIDEO OUT Connector (Phono type) 1.0Vp-p, 75Ω terminated	
AUDIO	HEAD: 1 Stationary head (Normal Audio) 4 rotary heads (Hi-Fi Audio)	
	INPUT: AUDIO IN Connector (Phono type) More than −10dBV (316mV), more than 50kΩ	

ITEM	SPECIFICATION
AUDIO	OUTPUT: AUDIO OUT Connector (Phono type) −8dBV (400mV), Less than 1kΩ HEAD PHONE Jack −29dBV, 8Ω
	TRACK: 1 track (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time: 4 hours with 240min. type tape FF/REW Time: 12min. with 180min. type tape
DIMENSIONS	259(W)×106(H)×277(D)mm
WEIGHT	3.08kg
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Battery Pack Charging Connector 1 pc. Antenna Cable 1 pc. Stereo Earphones 1 pc. DC Input Cable 1 pc. AV Output Cable (NV-FV1E) 1 pc. AUDIO/VIDEO Cable (NV-FV1B) 1 pc. BNC/PHONE Adaptor Plug (NV-FV1B)
LCD PANEL	Size: 5 Inch Number of Pixels: 133,440

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.

A1

ORDER NO. VRD9008M157

V/1397

Service Manual

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Adjustment Procedures
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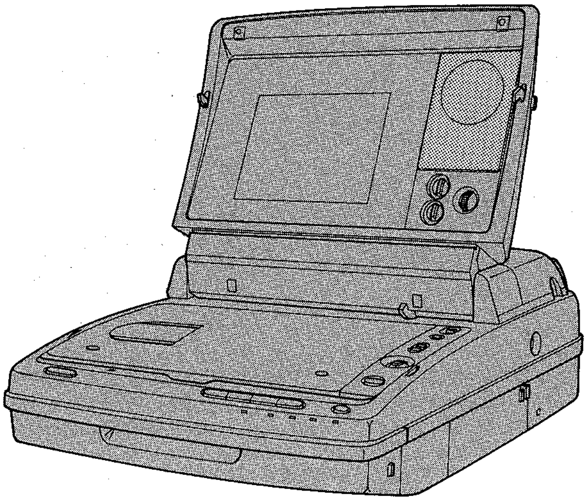
Portable TV with Video

Panasonic VHS PAL

Hi-Fi HQ

NV-FV1 E B



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Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.

Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.

Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.

In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.

Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...

Section 4 contains exploded views and parts list.

Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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SERVICE INFORMATION

1-1.HOW TO CHECK THE CRACKED CHIP PART

(1) Apply heat to the soldered portions of chip part using a soldering iron for about 2–3 seconds.
(2) If the chip part is faulty,it will be broken or cracked.

Caution: Do not leave soldering iron on the PCB too long as damage may occur to the PCB or the chip parts.

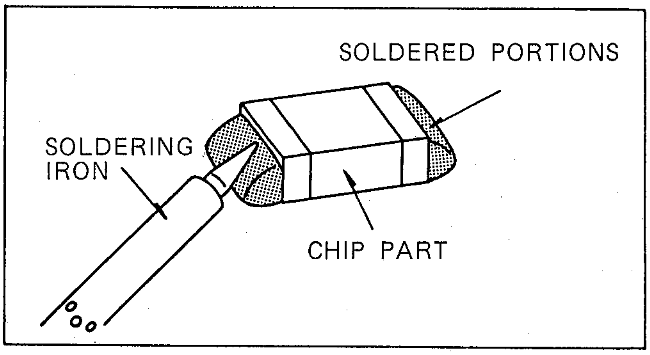

SOLDERED PORTIONS
SOLDERING IRON
CHIP PART

FIG. G1

Note: Regarding intermittent faults
The main causes of these faults are poor soldering and cracked chip parts.

1-2.HOW TO REPLACE THE CHIP PART

1) REMOVAL (RESISTOR, CAPACITOR, etc...)

(1) Presolder the one side of soldering portion for chip part and grasp the chip part by tweezers.

(2) Melt the presoldered portion. And then remove the chip part with a twisting motion while melting the soldering portion of another side quickly.

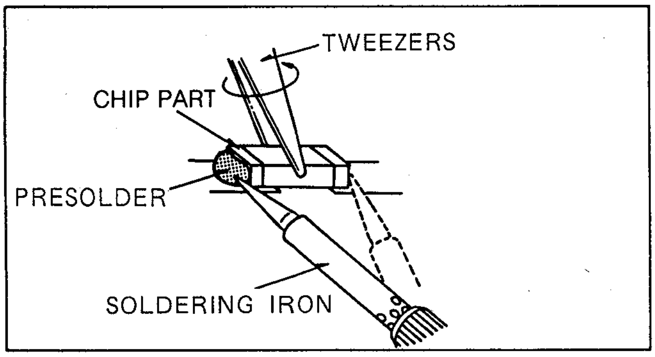

TWEEZERS
CHIP PART
PRESOLDER
SOLDERING IRON

FIG. G2

2) REMOVAL (transistor, diode, etc...)

(1) Grasp the chip part with tweezers and melt the solder of one lead.

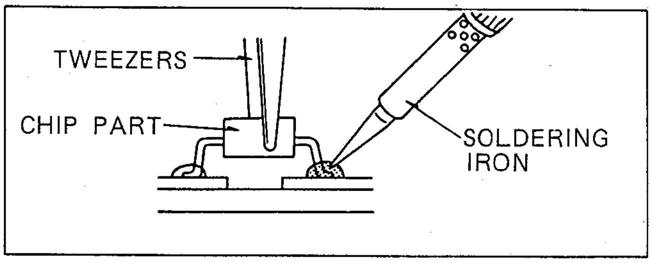

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G3

(2) Lift the side of that lead upward.

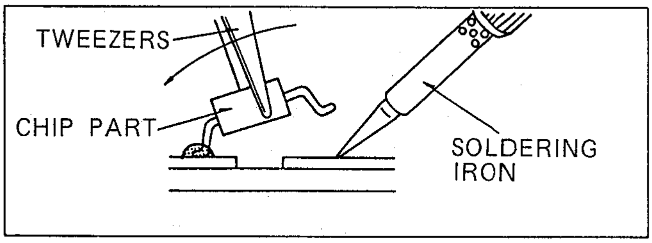

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G4

Caution: Do not lift the chip part too high as damage may occur to the PCB or the leads that are still soldered on the PCB.

(3) Simultaneously heat the solder of the two remaining leads and lift part to remove.

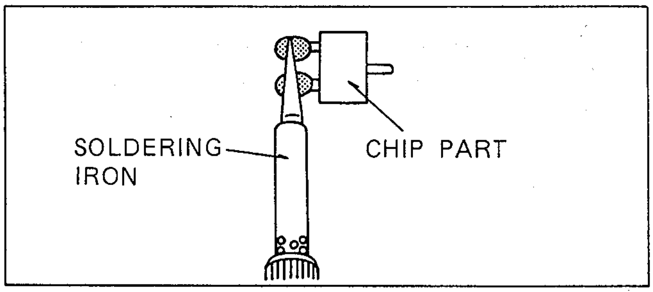

SOLDERING IRON
CHIP PART

FIG. G5

3) INSTALLATION

(1) Presolder the one side of contact point on the circuit board.

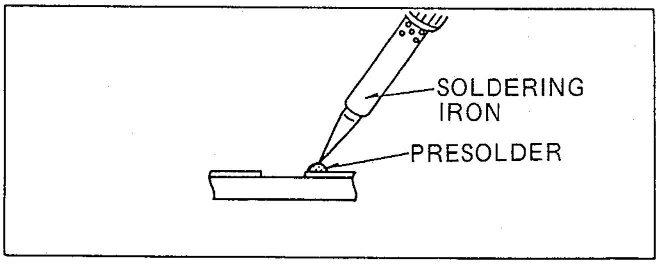

SOLDERING IRON
PRESOLDER

FIG. G6

(2) To install the chip part,hold in position using tweezers, apply heat to the pre–soldered portions using a fine tip soldering iron.
(3) Solder the other side of the chip part.
(4) Check your soldering.

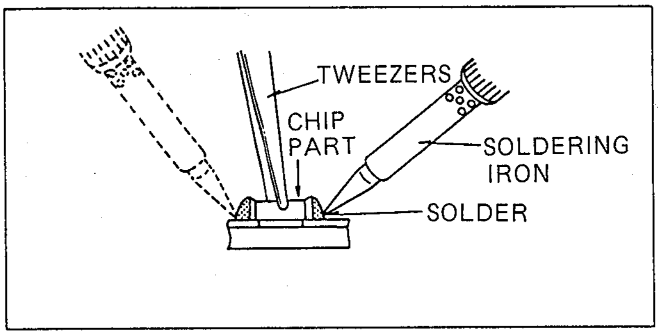

TWEEZERS
CHIP PART
SOLDERING IRON
SOLDER

FIG. G7

1-3.HOW TO REMOVE THE FLAT-IC

(WITH HOT–AIR FLAT–IC DESOLDERING MACHINE)

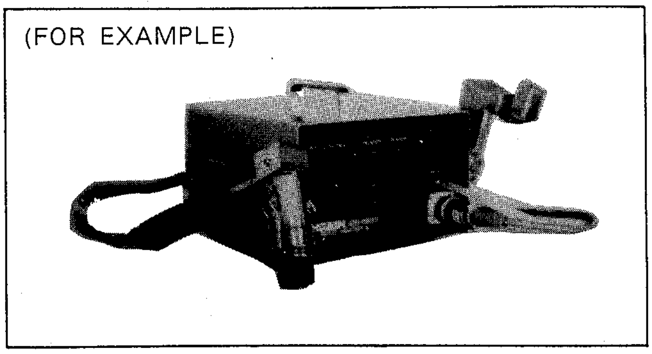

(FOR EXAMPLE)

FIG. G8

(1) Prepare the HOT–AIR FLAT–IC DESOLDERING MACHINE. And then apply hot air to FLAT–IC about 5 ~ 8 seconds.

(2) Remove the FLAT–IC with tweezers while applying the hot air.

Caution: Do not supply the hot air to the chip parts around the Flat–IC for long time as as damage may occur to the chip parts around the Flat –IC.

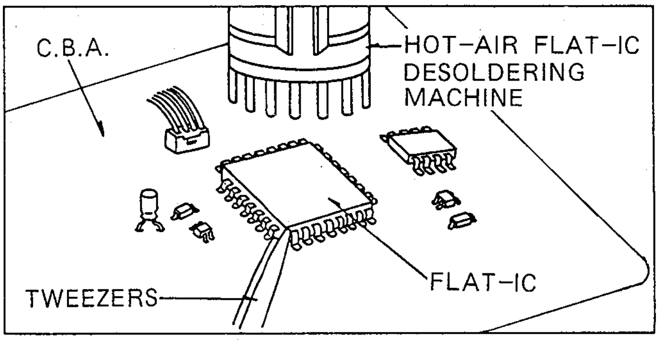

C.B.A.
HOT–AIR FLAT–IC DESOLDERING MACHINE
FLAT–IC
TWEEZERS

FIG. G9

(WITH SOLDERING IRON)

(1) Using solder braid remove the solder from all pins of the Flat–IC.
When you use the solder flux which is applied to all pins of the Flat–IC,you can remove it easily.

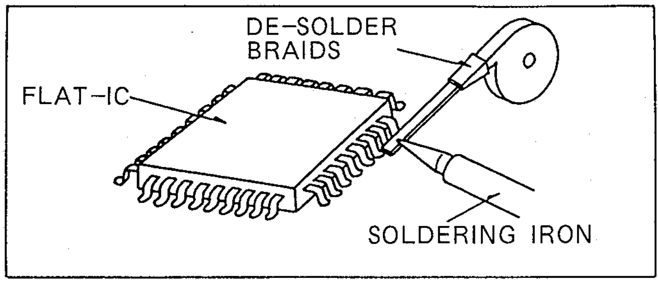

DE–SOLDER BRAIDS
FLAT–IC
SOLDERING IRON

FIG. G10

(2) Lift each lead of the Flat–IC upward one by one using a sharp pin or non solder wire(iron wire),while heating the pins using a fine tip soldering iron or a hot air blower.

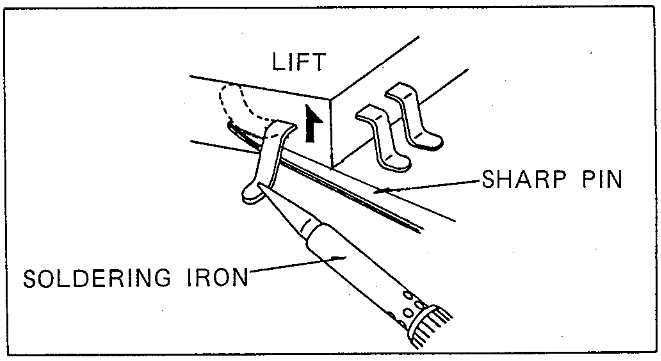

LIFT
SHARP PIN
SOLDERING IRON

FIG. G11

(WITH IRON WIRE)

(1) Affix the wire to workbench or solid mounting point as shown in FIG.G12.
(2) Pull up wire as the solder melts so as to lift the IC lead from the PCB contact pad,while heating the pins using a fine tip soldering iron or hot air blower.

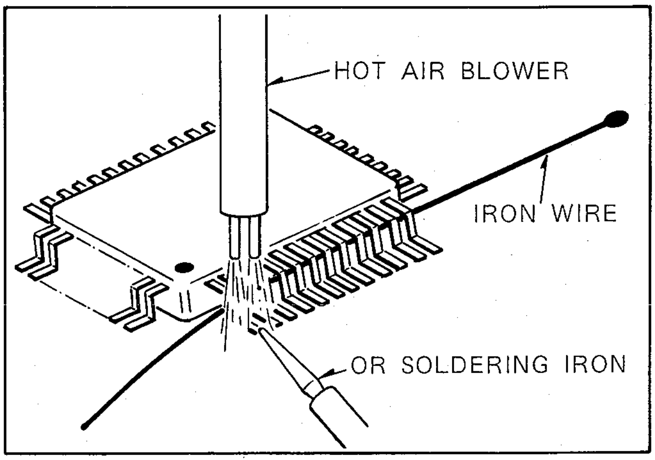

HOT AIR BLOWER
IRON WIRE
OR SOLDERING IRON

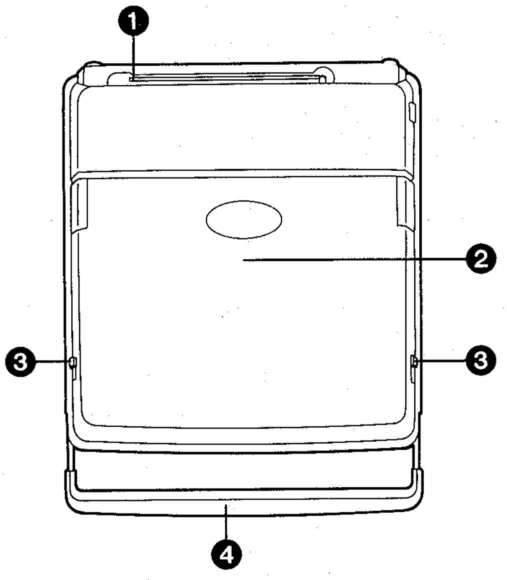
FIG.G12

Note: When using a soldering iron care must be taken to ensure that the Flat IC is not being held by glue before it is the PCB may be damaged if force is used.

SECTION 1
GENERAL DESCRIPTIONS

1-1. CONTROLS AND COMPONENTS

Top View

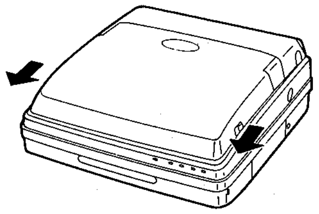


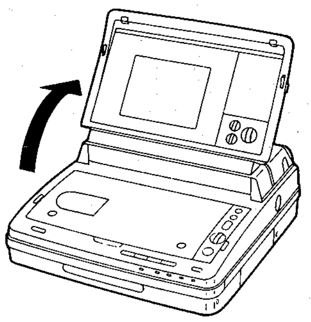
❶ VHF/UHF Rod Antenna

❷ Cover with Integrated LCD Monitor Screen

How to Open the Cover

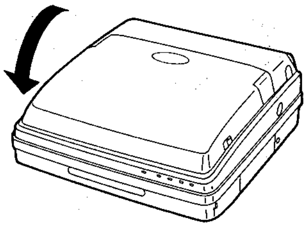
While pushing both Hook Levers ❸ in the direction of the arrow, open the Cover upward.





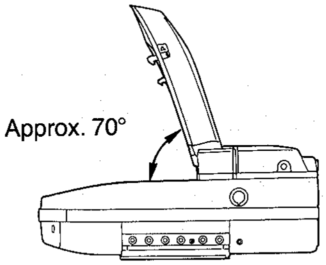
How to close the Cover

Be sure to close the Cover slowly.



Notes:

- To prevent damage and injury, do not move the unit while opening the Cover.
- To prevent malfunction and picture distortion, do not open or close the Cover during recording.
- Open the Cover more than 70°, otherwise the LCD Monitor Screen and the Speaker will not work, and the cassette cannot be removed.



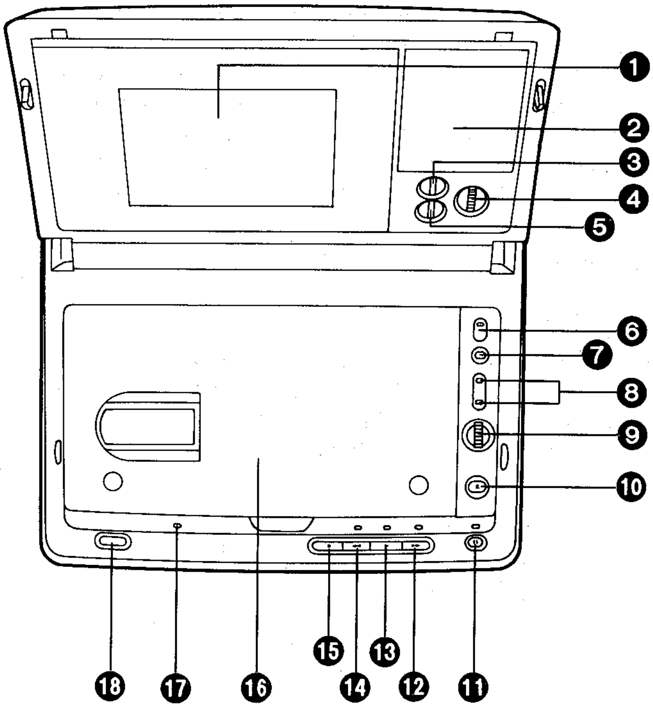
❸ Hook Levers

❹ Carrying Handle

Note:

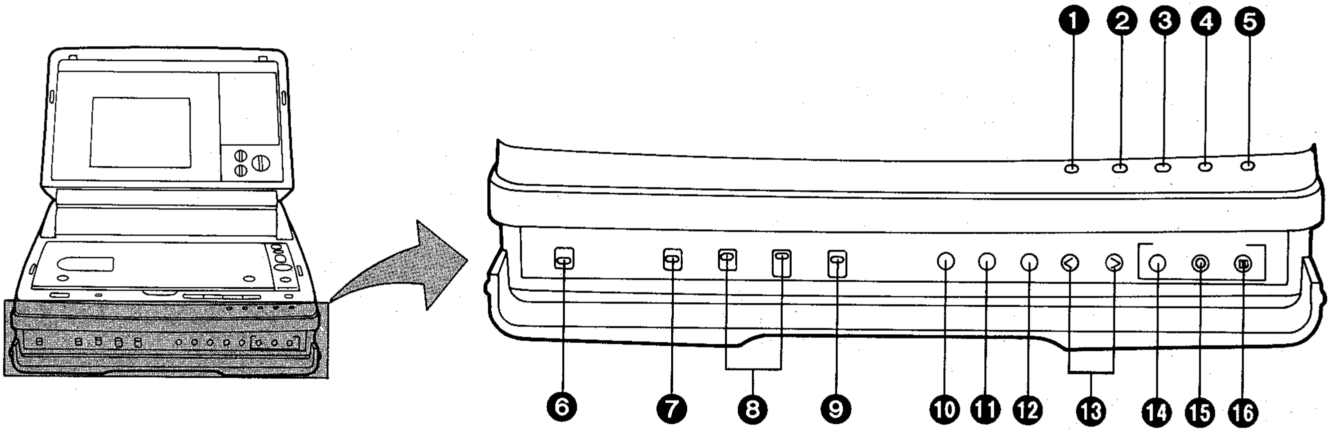
To carry the Portable TV with Video, pull out the Carrying Handle toward you.

Top View



- ❶ LCD Monitor Screen
- ❷ Speaker
- ❸ Colour Control
- ❹ Brightness Control
- ❺ Sharpness Control
- ❻ Band Selector Switch (VHF/UHF)
- ❼ Channel Display Button
- ❽ Channel Buttons
- ❾ Volume Control
- ❿ Eject Button
- ⓫ Still Button
- ⓬ Fast Forward ►►/Cue ⏩ Button
- ⓭ Play Button (►)
- ⓮ Rewind ◄◄/Review ⏪ Button
- ⓯ Stop Button (■)
- ⓰ Cassette Compartment
- ⓱ Hi-Fi Indicator
- ⓲ Operation On/Off Button

Front



- ❶ Operation Indicator
- ❷ Dew Indicator
- ❸ Stand-by Indicator
- ❹ Recording Indicator
- ❺ Pause Indicator

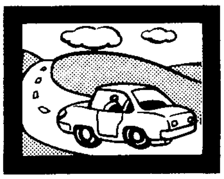
⑥ Playback System Selector Switch

NTSC Playback

With the Portable TV with Video, tapes recorded in the NTSC system can be played back.

- Set the Playback Selector Switch to "NTSC". When not using a tape recorded in NTSC, the Playback Selector Switch should always be in the "PAL" position.

Watching the NTSC Playback on the Portable TV with Video



- Black area may appear around the picture on the LCD Monitor Screen. However, this is not malfunction.
- Recording in the NTSC system is not possible with the Portable TV with Video.

Watching the NTSC Playback on a PAL System TV Set

- Depending on the TV set used, the picture may shrink vertically and black bars may appear both at the top and bottom of the screen.
  This is not an indication of a malfunction.
- The playback picture may roll up or down. If the TV set is equipped with a V-HOLD control, it may be possible to stop the picture movement by adjusting this control.
- Depending on the TV set used, the picture may be in black and white. However, this is not an indication of a malfunction.
- If the Playback Selector Switch is not set correctly, it is not possible to receive a normal picture.

⑦ Edit On/Off Switch

⑧ Audio Selector Switch

When the Audio Selector Switch is set to "Hi-Fi", the sound from the Hi-Fi tracks will be reproduced.
For normal use, this position should be selected.
(The Hi-Fi Indicator lights up.)

- Playback of the Hi-Fi audio tracks is possible in the following 3 ways:

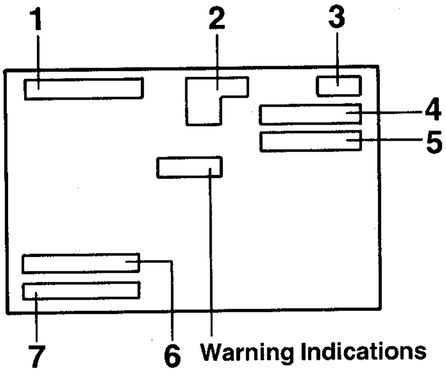
Selector Position	Bilingual Recorded Tape	Stereo Recorded Tape
Stereo	Main language from left speaker. Sub-language from right speaker.	Stereo
Left	Main language	Sound of left Stereo channel
Right	Sub-language	Sound of right Stereo channel

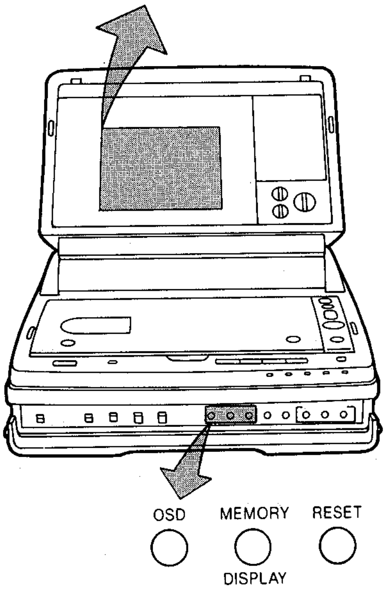
- As the Portable TV with Video is equipped with a mono speaker system, the sound from the hi-fi audio tracks will be reproduced in mono. In case of tapes with bilingual recordings, both languages will be mixed together, if the Sound Selector Switch is in the "STEREO" position during playback. Therefore, to listen to either the main or the sub-language, set the Selector to "LEFT" or "RIGHT".
- The sound output through the Phones Socket will also be as shown in the table right.

⑨ Input Signal Selector Switch

⑩ OSD (On-Screen Display) Button

Indications on the LCD Monitor Screen
When the OSD Button is pressed, the following indications will appear on the LCD Monitor Screen. Press the OSD Button one more time to erase them.





1 Counter Indications
When pressing the Memory/Display Selector Button, the Counter Indication will be shown even if you do not press the On-Screen Button.

M0000: Tape Counter
The figures in the indication will change according to the tape movement.
(The counter will work, even if it is not displayed on the screen.)

- When the Reset Button is pressed, the indication will be reset to "0000".
- When the Memory/Display Selector Button is pressed, the Memory Indication "M" mark will be displayed.

0:00.00: **Lap Time Counter**
When the Memory/Display Selector Button is pressed two times, the elapsed recording time will be indicated. This function does not work during playback.

- When the cassette is ejected or the Reset Button is pressed, it will be reset to "0:00.00".

2 Tape Running Indications

PLAY ▶	A tape is being played back. Depending on the operation, the following indications will be displayed:
STOP	Stop Mode
◀◀	Rewind Mode
PLAY ◀◀	Review Playback Mode
▶▶	Fast Forward Mode
PLAY ▶▶	Cue Playback Mode
PLAY ❚❚	Still Playback Mode
REC ▶	Recording Mode
REC ❚❚	Recording Pause Mode

3 Cassette-in Indication

📼 The "📼" Indication indicates that a cassette tape is inserted in the Portable TV with Video.
When the cassette tape is ejected, this indication will disappear.

4 Remaining Battery Power Indication

E––––F The "▬" indications begin to disappear from right to left as the power of the Battery Pack weakens.

5 Remaining Recording Pause Time Indication

0■■■■■5 When temporarily interrupting a recording by pressing the Pause Button, a maximum pause time of 5 minutes with be indicated by 5 solid white squares. Whenever one minute has elapsed, one of these squares will become an empty frame starting from the right.

5 seconds after all five squares have become empty frames, the Remaining Recording Pause Time Indication will disappear, and the Portable TV with Video will switch over to the Stop mode.

6 Input Indications

TUNER: The setting of the Input Signal Selector Switch is indicated.

CAMERA
LINE: When the Switch is set to "CAMERA" or "LINE", but no signal source is connected with this unit, the corresponding indication will not be displayed.

- The indication will disappear after 5 seconds.

7 Playback Sound Indications

HiFi L-R The setting of the Sound Control Switch is indicated.

HiFi L-R:	Stereo sound from the hi-fi audio tracks
HiFi L:	Left channel sound from the hi-fi audio tracks
HiFi R:	Right channel sound from the hi-fi sound tracks
NORMAL:	Sound from the normal audio track

- The Playback Sound Indication will disappear after 5 seconds.

Warning Indications

These Warning Indications will be indicated, even if the OSD Button is not pressed.

E– F BATT	When the Remaining Battery Power BATT Indication becomes "E– F", the Alarm Indication "BATT" will flash. When the Remaining Battery Power Indication becomes "E F", the Power Indicator will flash and the Portable TV with Video will turn off approx. 15 seconds later.
DEW	Condensation has formed inside the unit.
TAPE	When attempting to record on a cassette with broken out erasure prevention tab, the indication "TAPE" will flash. • It will disappear after 5 seconds.
END	When the tape has almost reached its end during recording, the indication "END" will flash. • It will disappear after 5 seconds.
⊗	Video Head Clogging (see page 3.)

Note:

- These indications cannot be recorded.
- Before watching a TV programme, press the On-Screen Button to erase them.
- If these indications are left indicated for a long period, an after-image will remain on the LCD Monitor Screen. However, this is not a malfunction and will disappear after a while.
- When the TV reception is weak, the On-Screen Indications may be distorted. In this case, press the On-Screen Button to erase them.
- If the letters of the On-Screen Indications are difficult to read, try to adjust with the Brightness Control. It may be possible to make them a little clearer.

⓫ Memory/Display Selector Button

⓬ Reset Button

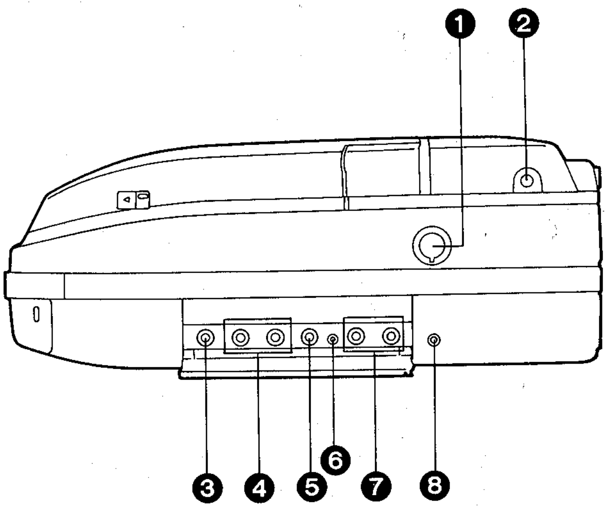
⓭ Tracking Control Buttons

⓮ Stand-by Button

⓯ Recording Button

⓰ Pause Button

Right Side



❶ Camera Socket

❷ Antenna Input Socket

❸ Video Input Socket

❹ Audio Input Sockets

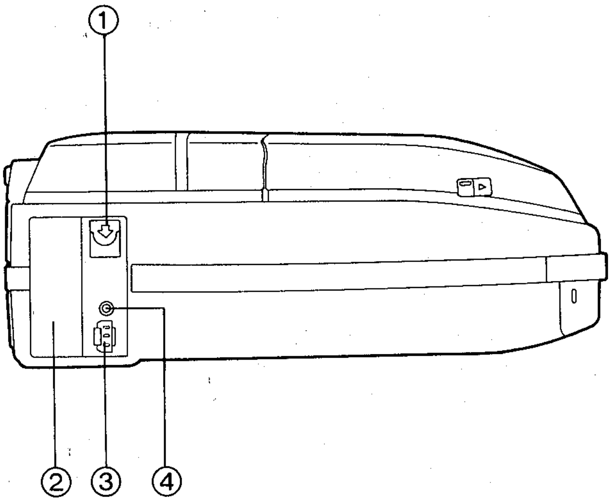
❺ Video Output Socket

❻ RF DC Output Socket

❼ Audio Output Sockets

❽ Phones Socket

Left Side



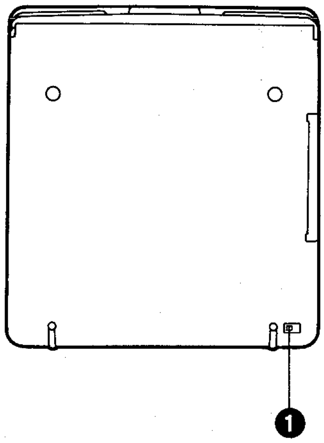
① Battery Eject Button

② Battery Compartment

③ DC Input Socket

④ Remote Socket

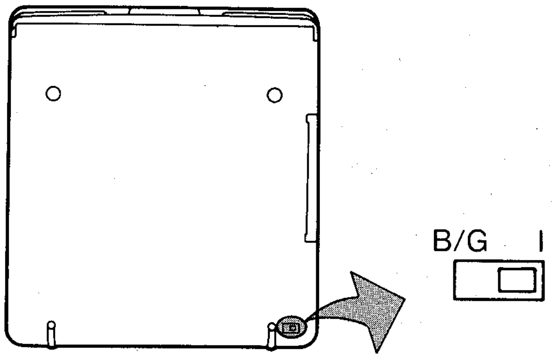
Bottom Side



① TV System Selector Switch

Set the TV System Selector Switch on the bottom of the unit according to the area where the Portable TV with Video is to be used.

I: for UK only
B/G: for Continental Europe



(NV-FV1E)

	VHF	UHF
E	2–12	21–69
*	A–H2	21–69

*Only for Italy

(NV-FV1B)

VHF	UHF
2–12	21–69

When this unit is used in the United Kingdom, the receivable frequency range is UHF channels 21 to 69.

1-2. ACCESSORIES FOR THE PORTABLE TV WITH VIDEO SYSTEM

Standard Accessories

	NV-FV1E	NV-FV1B
AC Adaptor	○	○
Battery Pack	○	○
Battery Pack Charging Connector	○	○
AV Output Cable	○	×
AUDIO/VIDEO Cable	×	○
Antenna Cable	○	○
Stereo Earphones	○	○
DC Input Cable	○	○
BNC/PHONO Adaptor Plug	×	○

Optional Accessories

Pause Remote Control Unit (VW-RM1)
Car Battery Cord (VW-ACMIDE)
RF Adaptor (VW-RF7E)
Carrying Case (VW-SHFV1)

SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY METHOD

2-1-1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

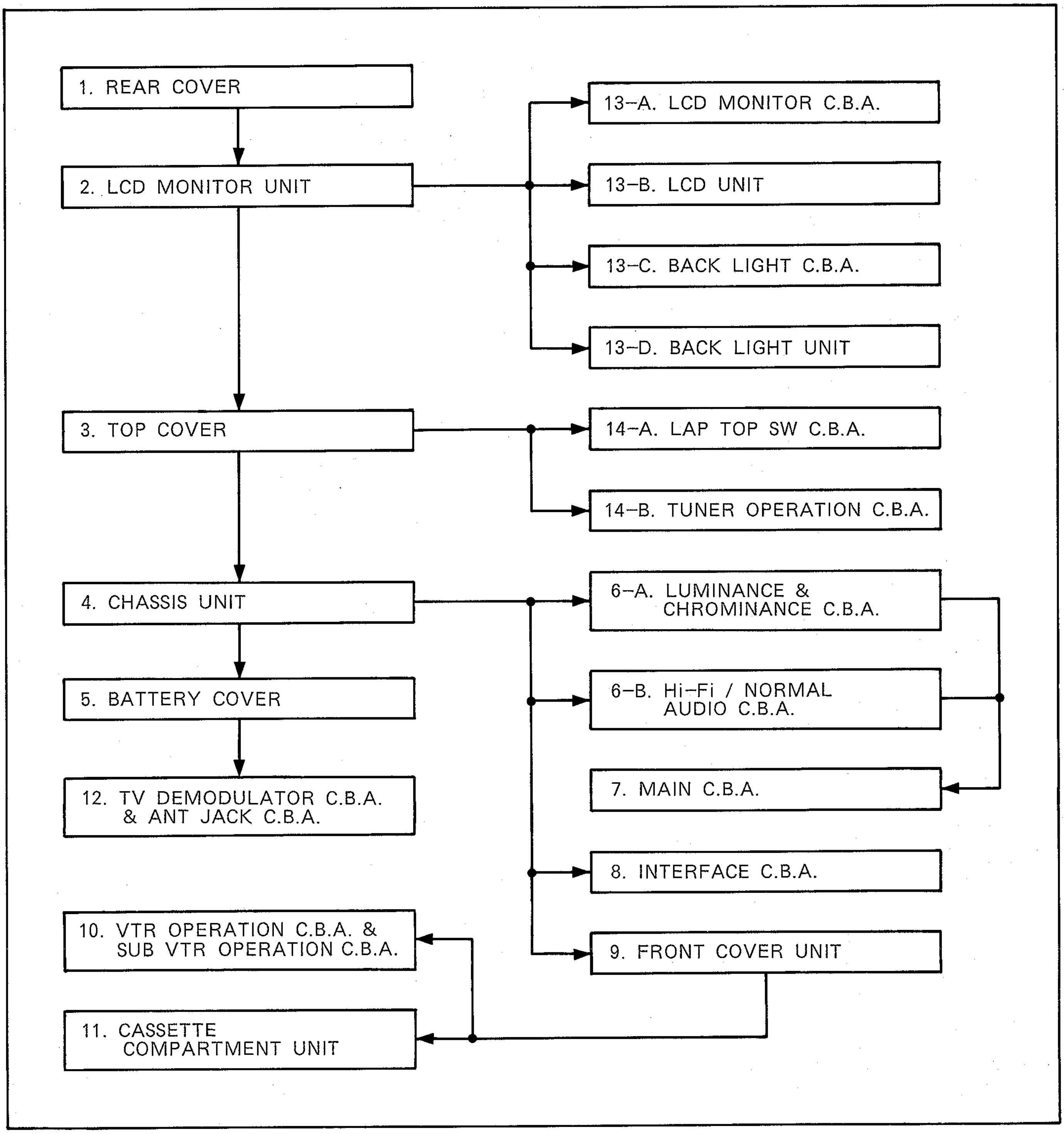

1. REAR COVER
2. LCD MONITOR UNIT
3. TOP COVER
4. CHASSIS UNIT
5. BATTERY COVER
12. TV DEMODULATOR C.B.A. & ANT JACK C.B.A.
10. VTR OPERATION C.B.A. & SUB VTR OPERATION C.B.A.
11. CASSETTE COMPARTMENT UNIT
13-A. LCD MONITOR C.B.A.
13-B. LCD UNIT
13-C. BACK LIGHT C.B.A.
13-D. BACK LIGHT UNIT
14-A. LAP TOP SW C.B.A.
14-B. TUNER OPERATION C.B.A.
6-A. LUMINANCE & CHROMINANCE C.B.A.
6-B. Hi-Fi / NORMAL AUDIO C.B.A.
7. MAIN C.B.A.
8. INTERFACE C.B.A.
9. FRONT COVER UNIT

Fig. D1

2–1–2. DETAIL OF DISASSEMBLE METHOD

1. REMOVAL OF THE REAR COVER

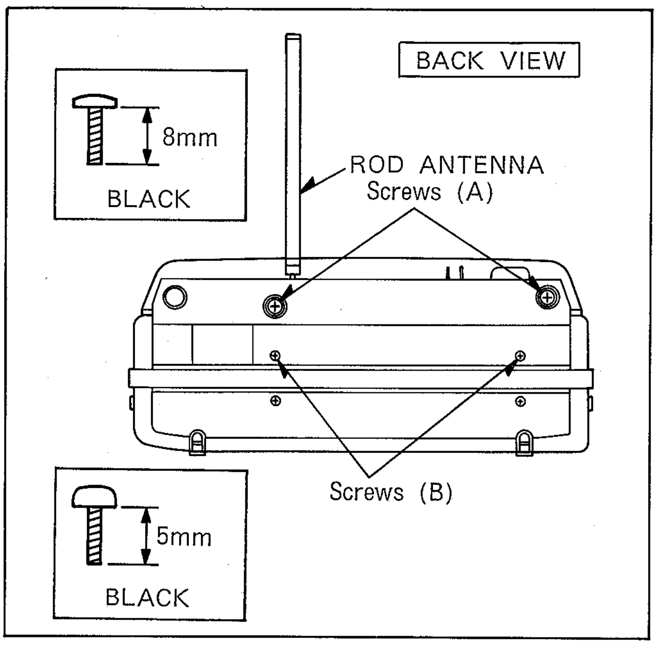

BACK VIEW
8mm
BLACK
ROD ANTENNA
Screws (A)
Screws (B)
5mm
BLACK

Fig. D2

(1) Remove 2 Screws (A).
(2) Turn the Rod Antenna upward.
(3) Life the rear side to remove.

2. REMOVAL OF THE LCD MONITOR UNIT

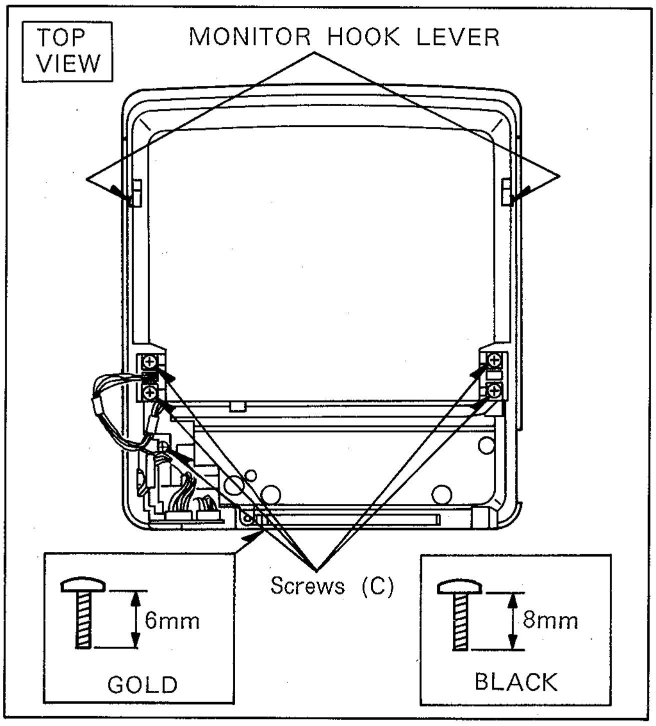

TOP VIEW
MONITOR HOOK LEVER
Screws (C)
6mm
GOLD
8mm
BLACK

Fig. D3

(1) Slightly open the monitor unit.
(2) Remove 5 Screws (C).
(3) Disconnect Connectors P3201 and P7103.
(4) Remove Earth Lug.

3. REMOVAL OF THE TOP COVER

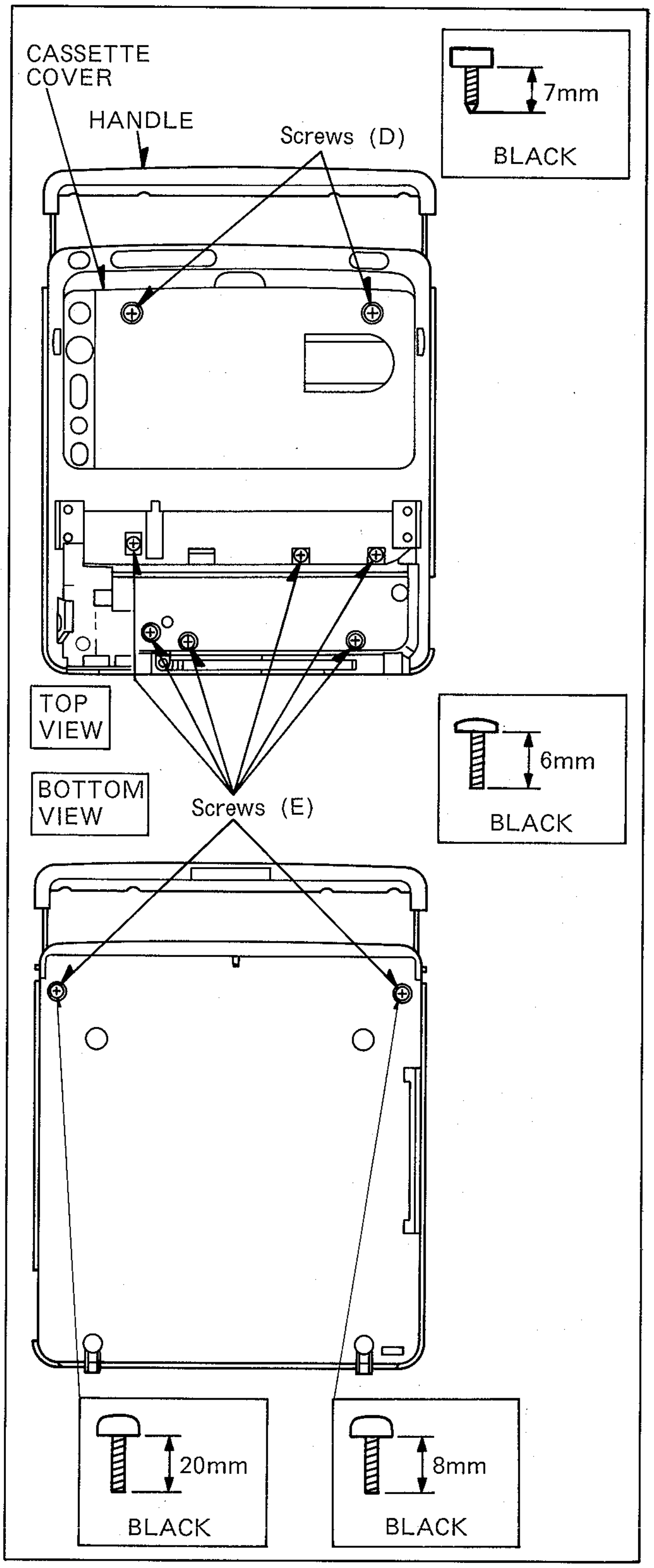

CASSETTE COVER
HANDLE
Screws (D)
7mm
BLACK
TOP VIEW
BOTTOM VIEW
Screws (E)
6mm
BLACK
20mm
BLACK
8mm
BLACK

Fig. D4

(1) Remove 2 Screws (B). *(Refer to Fig.D2)
(2) Remove 2 Screws (D).
(3) Remove the cassette cover.
(4) Remove 8 Screws (E).
(5) Pull the handle out.
(6) Disconnect Connectors P6301 and P3201.

4. REMOVAL OF THE CHASSIS UNIT

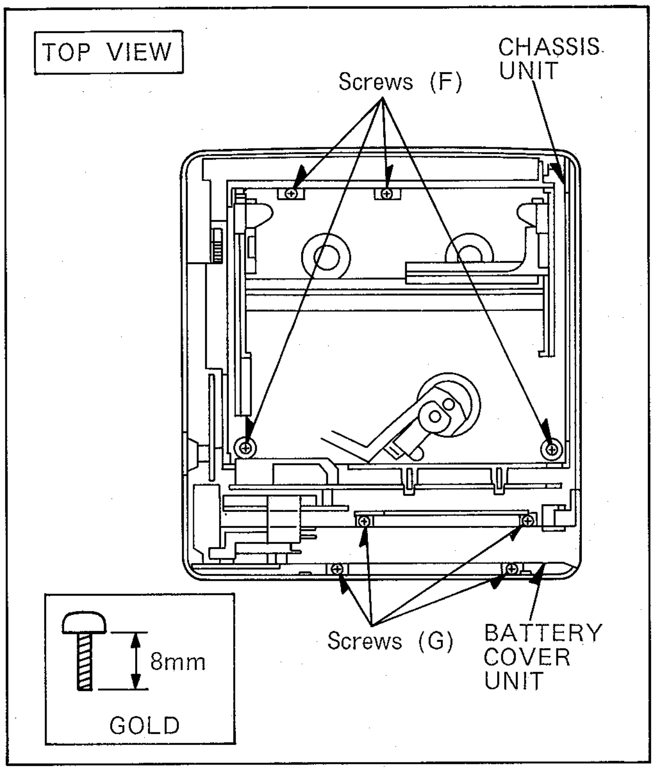

TOP VIEW
Screws (F)
CHASSIS UNIT
8mm
GOLD
Screws (G)
BATTERY COVER UNIT

Fig. D5

(1) Remove 4 Screws (F).
(2) Disconnect Connectors P3204,P3212,P3213 and P1601.

5. REMOVAL OF THE BATTERY COVER UNIT

(1) Remove 4 Screws (G). (Refer to Fig.D5.)

6. OPENING OF THE LUMINANCE & CHROMINANCE C.B.A. & Hi-Fi / NORMAL AUDIO C.B.A.

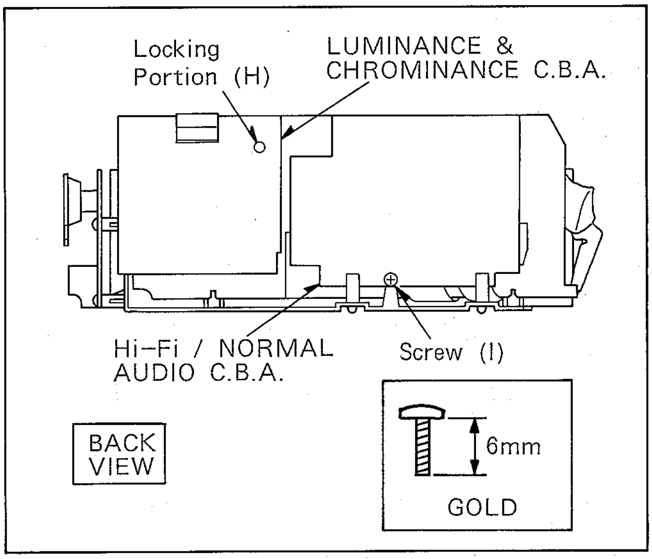

Locking Portion (H)
LUMINANCE & CHROMINANCE C.B.A.
Hi-Fi / NORMAL AUDIO C.B.A.
Screw (I)
BACK VIEW
6mm
GOLD

Fig. D6

A. OPENING OF THE LUMINANCE & CHROMINANCE C.B.A.

(1)Unlock 1 Locking Portion (H).

B. OPENING OF THE Hi-Fi / NORMAL AUDIO C.B.A.

(1)Remove 1 Screw (I).

7. REMOVAL OF THE MAIN C.B.A.

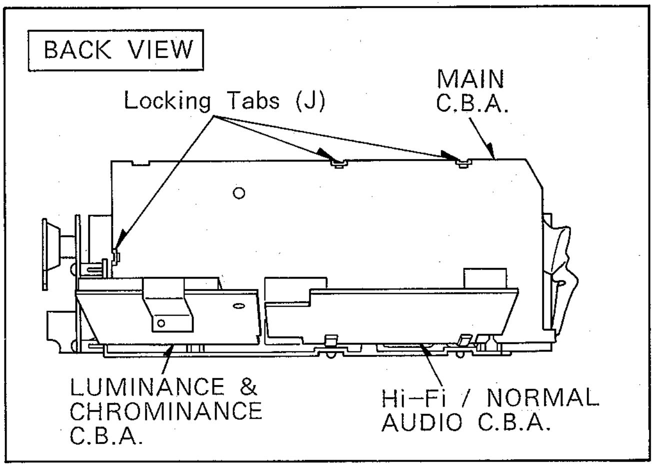

BACK VIEW
Locking Tabs (J)
MAIN C.B.A.
LUMINANCE & CHROMINANCE C.B.A.
Hi-Fi / NORMAL AUDIO C.B.A.

Fig. D7

(1)Unsnap 3 Locking Tabs (J).

8. REMOVAL OF THE INTERFACE C.B.A.

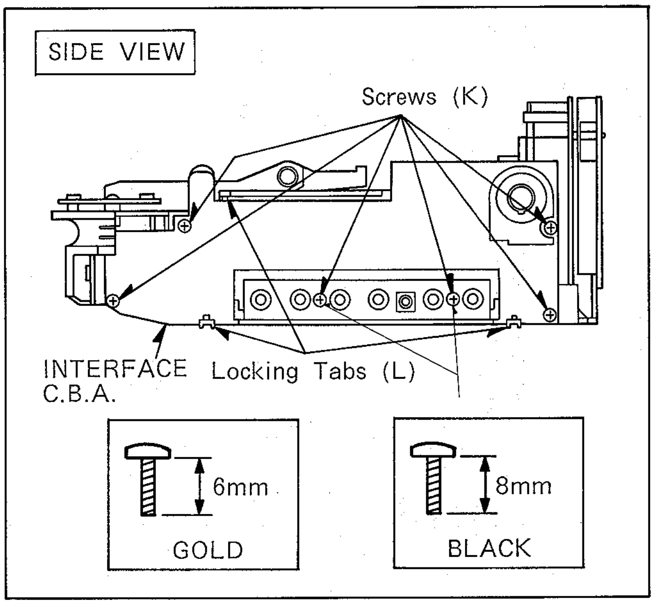

SIDE VIEW
Screws (K)
INTERFACE C.B.A.
Locking Tabs (L)
6mm
GOLD
8mm
BLACK

Fig. D8

(1) Rrmove 6 Screws (K).
(2) Unsnap 3 Locking Tabs (L).

9. REMOVAL OF THE FRONT COVER UNIT

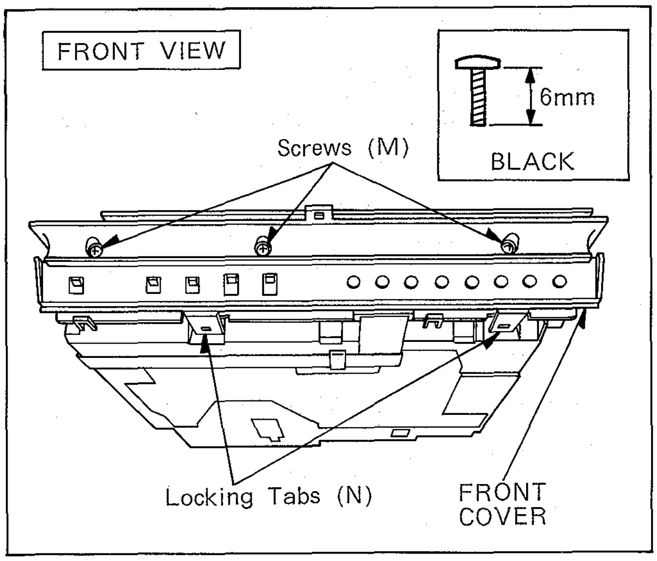
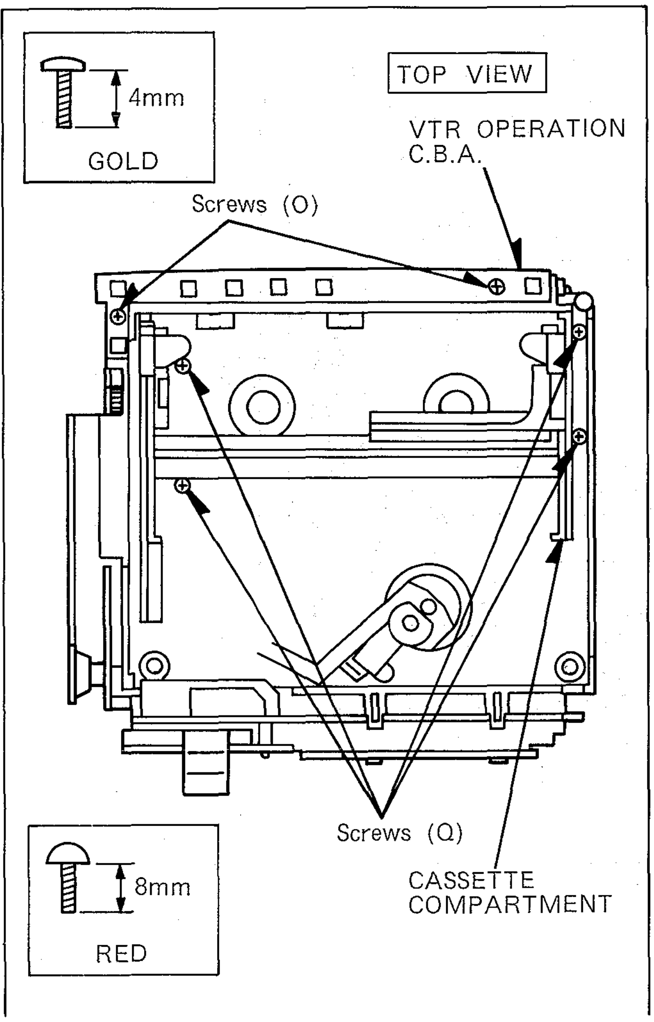

FRONT VIEW
6mm
BLACK
Screws (M)
Locking Tabs (N)
FRONT COVER

Fig. D9

(1) Remove 3 Screws (M).
(2) Unsnap 2 Locking Tabs (N).

10. REMOVAL OF THE VTR OPERATION C.B.A. & SUB VTR OPERATION C.B.A.


4mm
GOLD
TOP VIEW
VTR OPERATION C.B.A.
Screws (O)
Screws (Q)
8mm
RED
CASSETTE COMPARTMENT

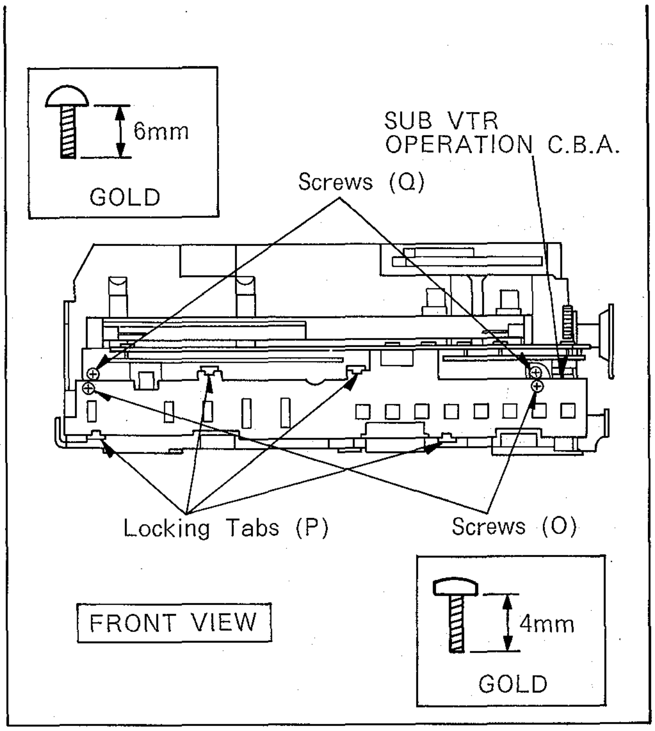

6mm
GOLD
SUB VTR OPERATION C.B.A.
Screws (Q)
Locking Tabs (P)
Screws (O)
FRONT VIEW
4mm
GOLD

Fig. D10

(1) Remove 4 Screws (O).
(2) Unsnap 4 Locking Tabs (P).

11. REMOVAL OF THE CASSETTE COMPARTMENT

(1) Remove 6 Screws (Q). (Refer to Fig.D10.)

12. REMOVE OF THE TV DEMODULATOR C.B.A. & ANT. JACK C.B.A.

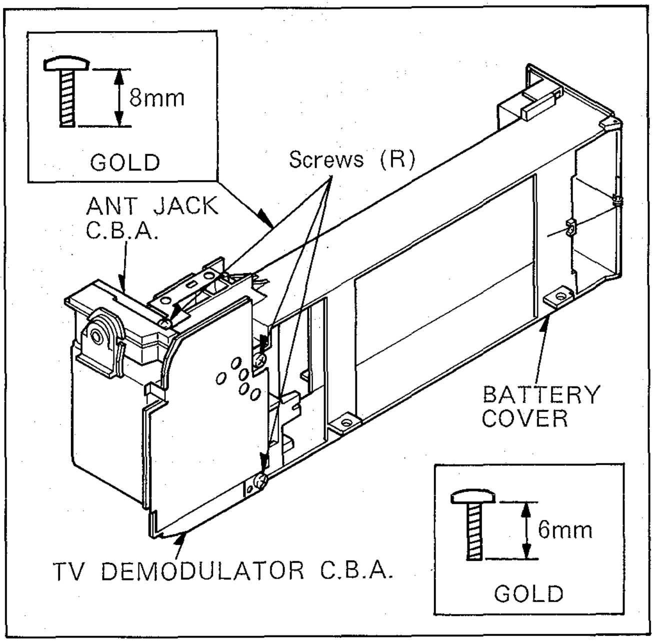

8mm
GOLD
Screws (R)
ANT JACK C.B.A.
BATTERY COVER
6mm
GOLD
TV DEMODULATOR C.B.A.

Fig. D11

(1) Remove 3 Screws (R).
(2) Disconnect Connector P7107.

13. REMOVAL OF THE LCD MONITOR C.B.A. / LCD UNIT / BACK LIGHT C.B.A. & BACK LIGHT UNIT

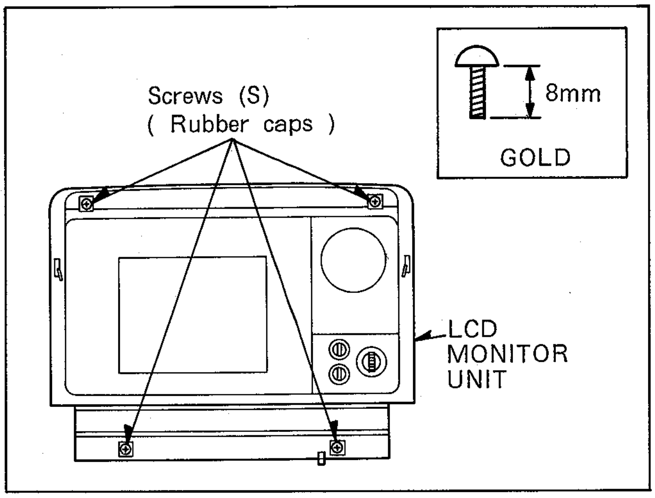

Screws (S)
(Rubber caps)
8mm
GOLD
LCD
MONITOR
UNIT

Fig. D12

(1) Remove 4 Rubber Caps and 4 Screws (S).
(2) Unlock the Monitor Hook Lever and remove the Monitor Top Cover.
(3) Disconnect Connectors P0001 and P0002.

A. REMOVAL OF THE LCD MONITOR C.B.A.

(4) Remove 1 Screw (T).
(5) Remove 4 Screws (U).
(6) Disconnect Connectors P0005,P0004 and P0003.

B. REMOVAL OF THE LCD UNIT

(4) Remove 1 Screw (T).
(5) Remove 4 Screws (V).
(6) Remove the LCD PANEL HOLDER.

C. REMOVAL OF THE BACK LIGHT C.B.A.

(4) Remove 2 Screws (W).

D. REMOVAL OF THE BACK LIGHT UNIT

(4) Remove 4 Screws (X).
(5) Disconnect Connector P0006.

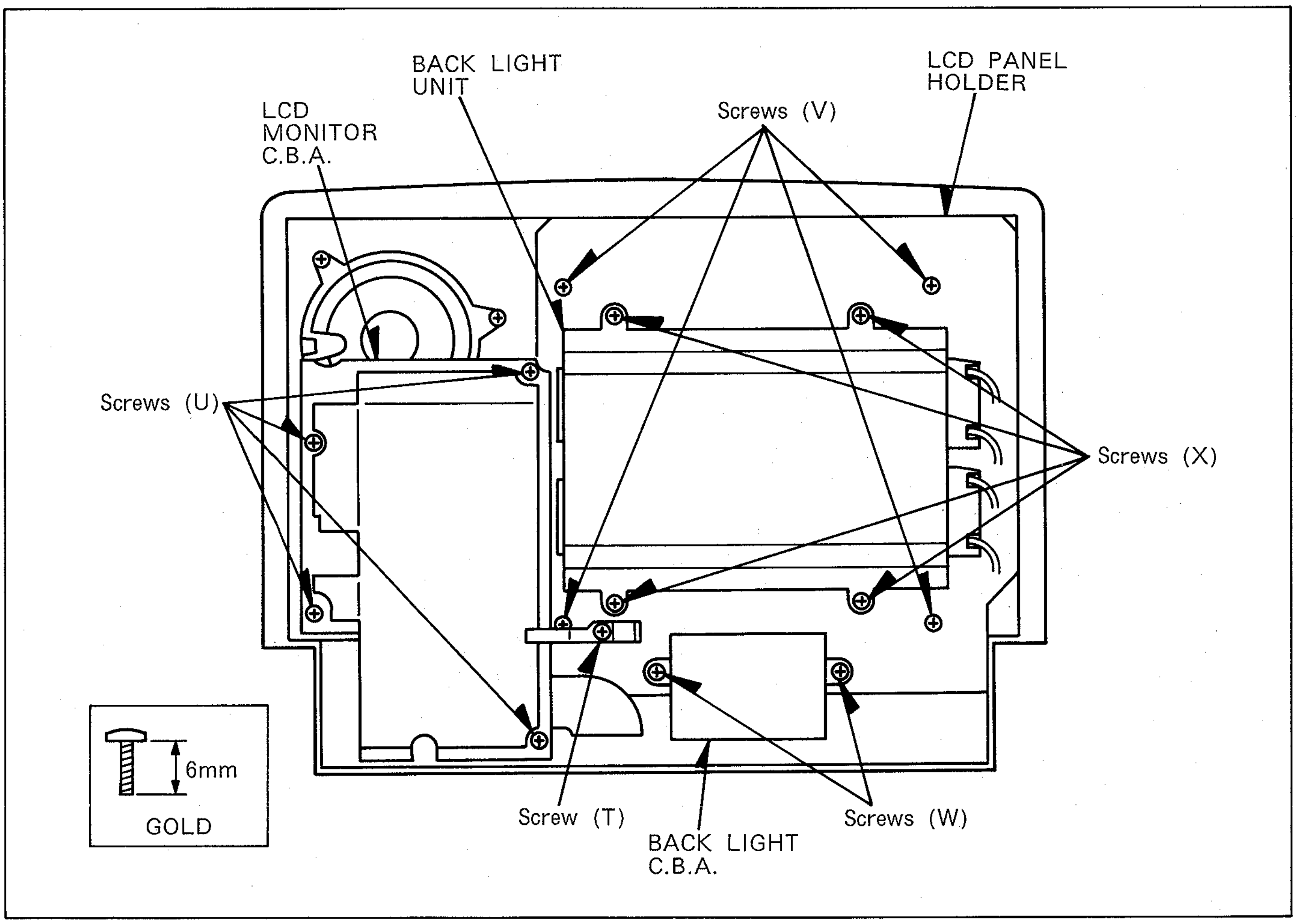

BACK LIGHT
UNIT
LCD PANEL
HOLDER
LCD
MONITOR
C.B.A.
Screws (V)
Screws (U)
Screws (X)
6mm
GOLD
Screw (T)
BACK LIGHT
C.B.A.
Screws (W)

Fig. D13

14. REMOVAL OF THE LAP TOP SW C.B.A. & TUNER OPERATION C.B.A.

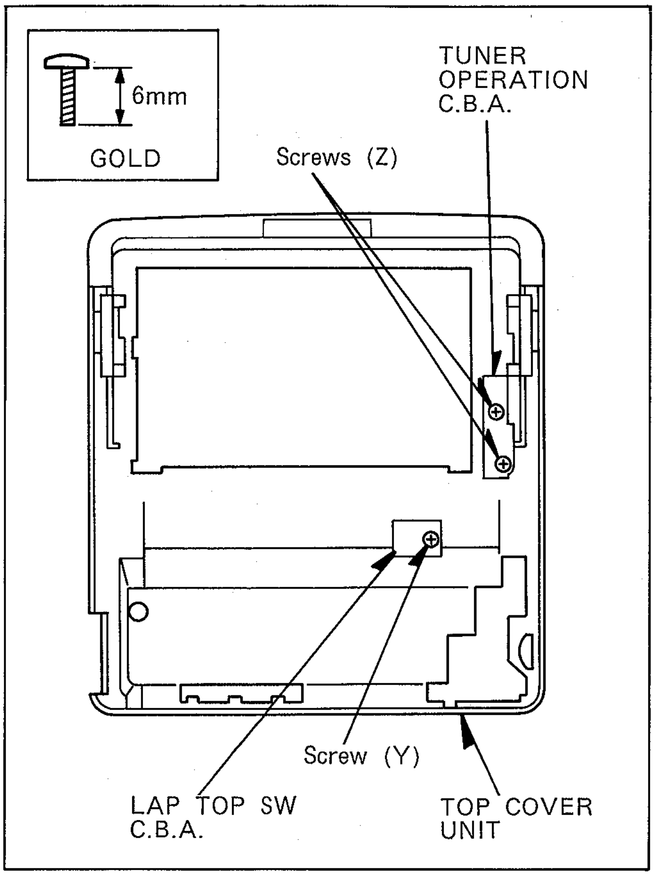

6mm
GOLD
TUNER OPERATION C.B.A.
Screws (Z)
Screw (Y)
LAP TOP SW C.B.A.
TOP COVER UNIT

Fig. D14

A. REMOVAL OF THE LAP TOP SW C.B.A.

(1) Remove 1 Screw (Y).

B. REMOVAL OF THE TUNER OPERATION C.B.A.

(1) Remove 2 Screws (Z).

2-2. REPLACEMENT PROCEDURES

2-2-1. REPLACEMENT OF ROTARY TRANSFORMER

[REINSTALLATION OF ROTARY TRANSFORMER (R) UNIT]

(1) Reistall the Rotary Transformer (R) Unit carefully so that the white portion of Upper Cylinder Unit is properly aligned with white portion of Rotary Transformer (R).

(2) Tighten the 2 screws (C) and solder 8 Lead Pins (D).

[REINSTALLATION OF UPPER ROTARY TRANSFORMER (S) UNIT]

(1) Befor reinstalling a Upper Rotary Transformer (S) Unit, clean the surface of Rotary transformer (R) and Rotary Transformer (S) with a soft cloth.

(2) Place the Spacer (VMX1340) on Rotary Transformer (R). Reinstall the Upper Rotary Transformer (S) Unit so that insert the shaft (VMS3504) to center of Rotary transformer (S) surely through the center of Upper Rotary transformer (R).

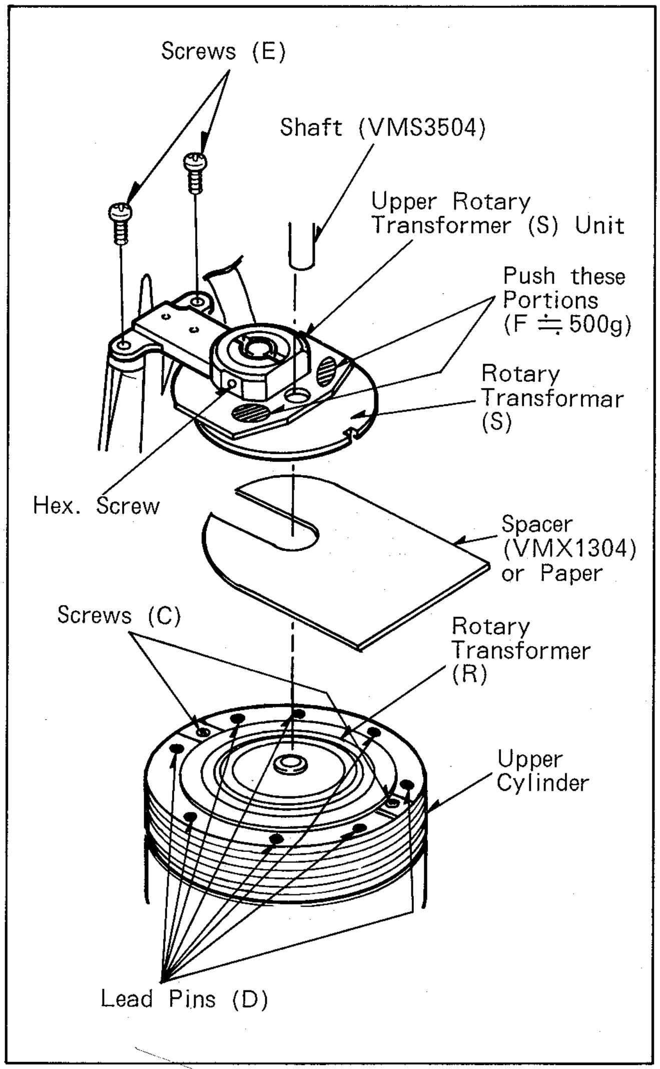

Screws (E)
Shaft (VMS3504)
Upper Rotary Transformer (S) Unit
Push these Portions (F ≑ 500g)
Rotary Transformar (S)
Hex. Screw
Spacer (VMX1304) or Paper
Screws (C)
Rotary Transformer (R)
Upper Cylinder
Lead Pins (D)

Fig. R1

(3) Tighten the 2 screws (E).
(4) Loosen the Hex. Screw (1.2mm)
(5) Push the Upper Rotary Transformer (S) C.B. (F=500g) and then remove the Shaft and tighten the Hex, Screw.
(6) Remove the spacer.

[SIMPLIFIED ADJUSTMENT OF UPPER ROTARY TRANSFORMER (S) UNIT]

(1) Clean the surface of the Rotary Transformer (R) and (S) with a soft cloth before reinstall a Upper Rotary Transformer (S) Unit.
(2) Place a piece of paper on Rotary Transformer (R) which has the same thickness as an ordinary page of Service Manual (not cover page but the other thinner pages) cutting as follows. (The specification of this gap is between 70um ~ 100um)
(3) Install the Rotary Transformer (S) unit so that the center portion comes to the center of Upper Cylinder Motor.
(4) Tighten the 2 Screws (E).
(5) Loosen the Hex. screw.
(6) Push the screened portions of the Rotary Transformer (S) (approx. 500g) and then tighten the Hex. screw with Hex wrench.
(7) Remove the paper which is used as spacer.
(8) Confirm that the Upper Cylinder can rotate smoothly.

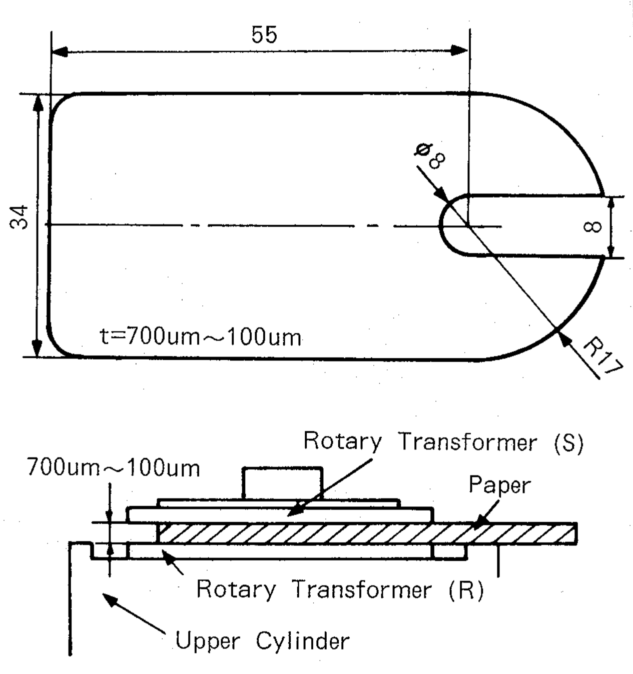


Fig. R2

[CONFORMATION OF REPLACEMENT]

(1) Confirm the rotarion of Upper Cylinder Unit. (Upper Cylinder Unit rotate smoothly.)
(2) Insert the Spacer to gap of Rotaly Trans. (It must be smoothly also gap must not be too wide.)
(3) Confirm the self-recording and Playback picture. (Play back picture must not noisy)
(4) If condition is no good, review the item No.6 Reinstllation of Upper Rotary Transformer (S) Unit.
(5) After confirmation, perform "TAPE INTERCHANGEABILITY ADJUSTMENT".

2–2–2. REPLACEMENT OF CAPSTAN MOTOR UNIT

* Equipment required:
Reel Table Height Gauge (VFK0190)
* Specification...0.5+–0.05mm

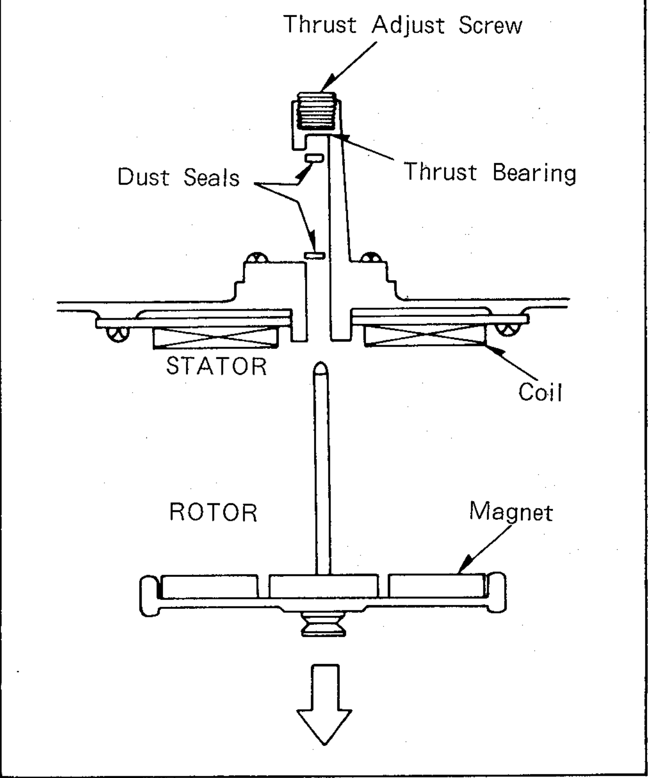


Fig. R3

(1) Remove the 2 screws and take belt cover off. After that remove the capstan belt.
(2) Tighten the Thrust Adjust Screw fully and pull the capstan rotor.

Note :

In this time pay attention not to lose two pieces of Dust Seal.

(3) Replace the new rotor with two pieces of Dust Seal.

Note :

(1) Pay attention to the replaced new rotor not to shock because of magnet absorbtion.
So hold the rotor firmly and replace it carefully.

(2) In this replacement, do not touch the Capstan shaft with any hard material like drivers or tweezers.

(4) After replacement, wipe off the Capstan shaft to remove oil, grease or dust.

(5) Unscrew Thrust Adjust Screw till the rotor is just touching to the stator.

(6) Turn this mechanism upside down and place the Reel Table Height Gauge so that the gauge fits to the chassis correctly, and read the height.

(7) Adjust the Thrust Adjust Screw so that the height difference just meets in the specification (0.5+–0.005mm) reading the height from the gauge.

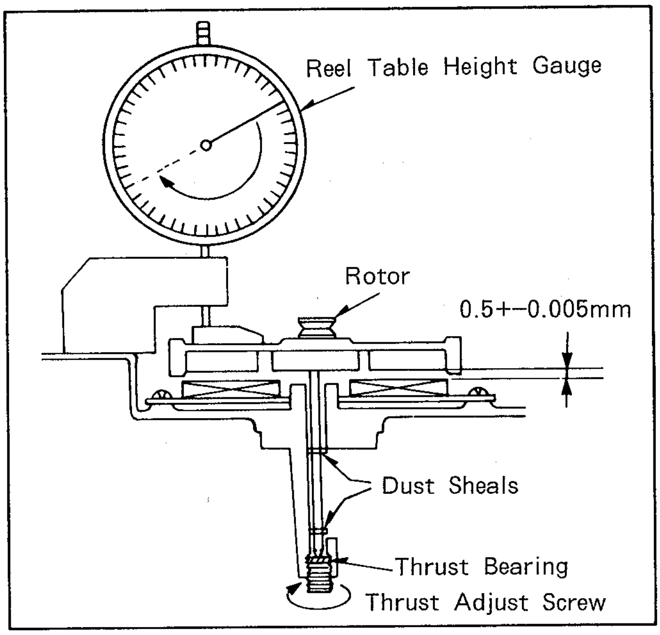

Reel Table Height Gauge
Rotor
0.5+–0.005mm
Dust Sheals
Thrust Bearing
Thrust Adjust Screw

Fig. R4

Note:
If the Thrust Adjust Screw is fully opened, you have to pay attention not to lose Thrust Bearing.
When it is fixed, confirm that the direction of Thrust Bearing is correct as shown below.

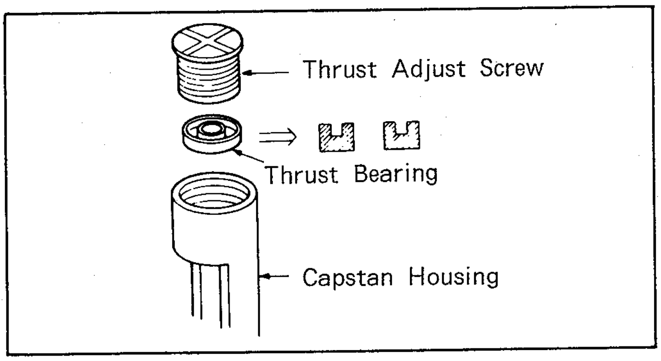

Thrust Adjust Screw
Thrust Bearing
Capstan Housing

Fig. R5

2–2–3. REPLACEMENT OF TENSION BAND

(1) Remove the cassette compartment.

(2) Remove a retaining ring and take out a Rew Arm (A) Unit.

(3) Remove a retaining ring and a snap washer and take out a tension Band Unit.

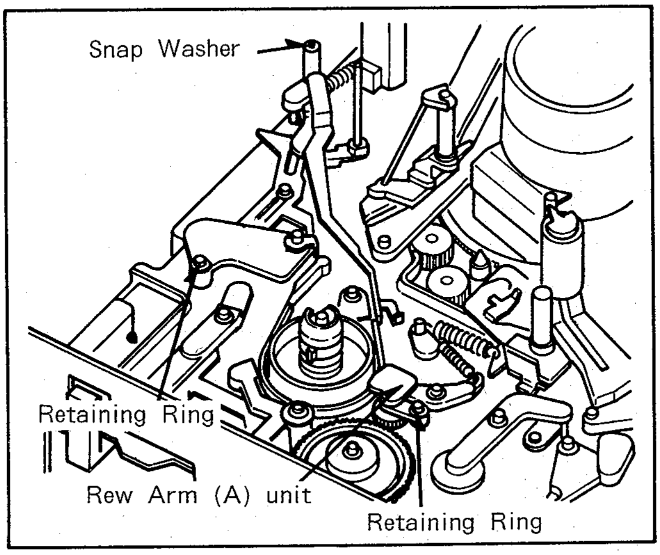

Snap Washer
Retaining Ring
Rew Arm (A) unit
Retaining Ring

Fig. R6

(4) Remove a Tension Band from Band Release Arm and Tension Arm Unit.

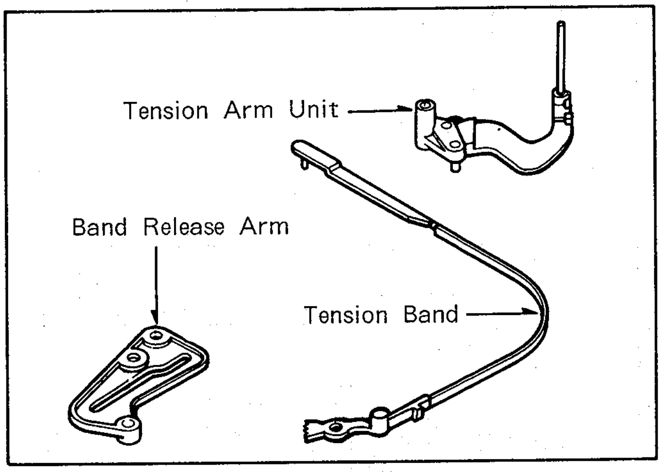

Tension Arm Unit
Band Release Arm
Tension Band

Fig. R7

(5) Replace a new Tension Band by Proceeding reverse steps shown above.

2-3. SERVICE INFORMATION

2–3–1. HOW TO EJECT THE CASSETTE TAPE WHEN THE POWER SW IS TURNED OFF

(NOTE)
Refer to 2–1 DESASSEMBLY METHOD.

(1) Remove the LCD Unit and Top Cover.
(2) Remove the VTR Operation C.B.A. and Sub–VTR Operation C.B.A.
(3) Insert the small screwdriver to the holl located in the left side of the REC Inhibit SW.
(4) Push the Eject Lever.

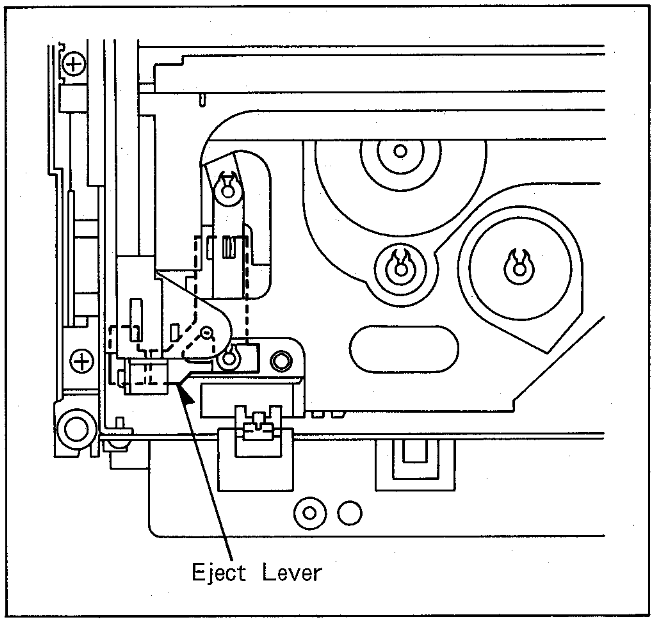


Fig. S1

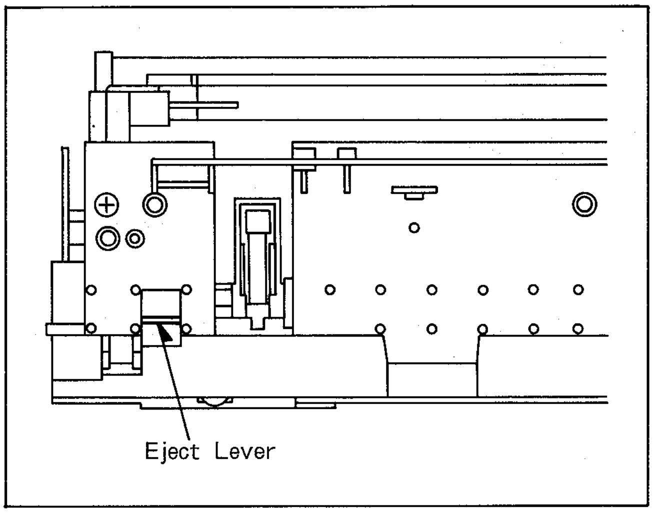
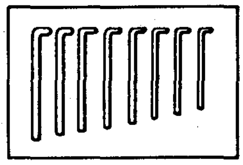
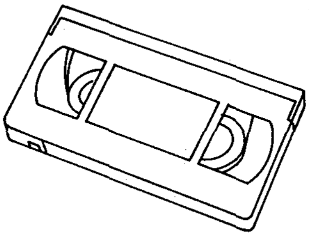
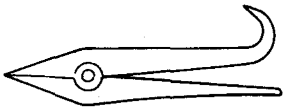
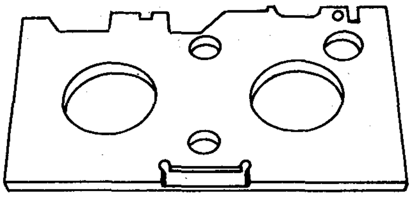
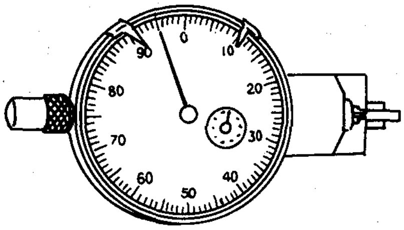
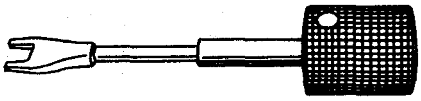
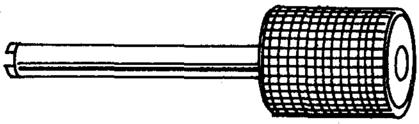
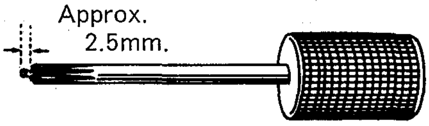
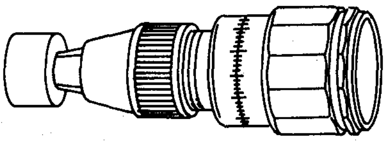
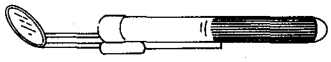
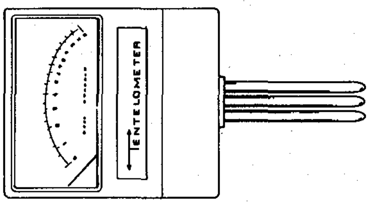
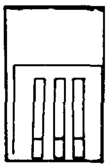
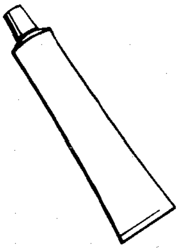


Fig. S2

2-4. MECHANICAL ADJUSTMENT PROCEDURES

1. SERVICING FIXTURES & TOOLS

VFK0326 Hex Wrench Set (0.7, 0.9, 1.2, 1.5, 1.6, 2, 2.4, 3mm) 	VFJ8125H3F VHS Alignment Tape 	VFK0335 Retaining Ring Remover (3mm/4mm) 
VFK0191 Post Adjustment Plate 	VFK0190 Reel Table Height Gauge 	VFK0328 H–Position Adj. Fixture 
VFK0329 Post Adjustment Screwdriver 	VFK0157 Fine Adjustment Screwdriver  Approx. 2.5mm. Grind the top portion approximately 2.5mm	VFK0133 Dial Torque Gauge VFK0134 Adaptor for VFK0133 VFK0180 (Plastic Clamper Only)) 
VFK0343 Check Light 	VFK0132 Back Tension Meter (TZ–H7–UM) *(Tentelometer, Made in U.S.A.)* 	VKF27 Head Cleaning Stick 
MOR265 Morlytone Grease 	High Quality Machine Oil <Purchase Locally> (Reel Shaft, Capstan Shaft etc.) Cleaning Liquid (Freon, TF, Alchol) <Purchase Locally> (Tape Transport Rubber Parts etc.)	

2. PROCEDURES FOR CLEANING OF UPPER CYLINDER UNIT

(1) Position the video head to clean and hold the upper cylinder to keep it from turning while cleaning.
(2) Gently rub the video head in direction of tape travel whith Head Cleaning Stick.
(3) Repeat for the other three video heads.

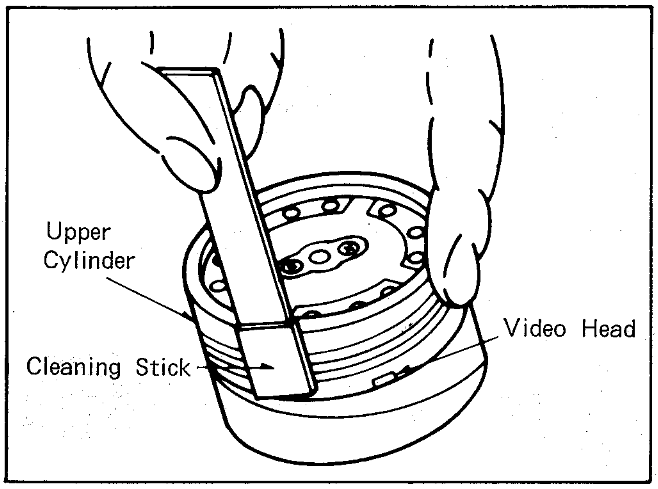


Fig. U1

Note:
(1) Do not rub vertically.
(2) Do not apply any pressure to heads.
If contamination is not easily removed,continued gentle wiping will usually remove the substance.

3. TAPE INTERCHANGEABILITY ADJUSTMENT PROCEDURES

3-1. ADJUSTMENT FLOW CHART

This flow chart describes the order of steps for adjusting the tape guide posts and A/C head in order to gain access to the items needing servicing.

AFTER REINSTALLING THE P1 POST, OR IF THE P1 POST HAS BEEN TURNED EXCESSIVELY.

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

* **Note:**
Adjust the tape guide post P1 only.

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE UPPER CYLINDER OR CYLINDER UNIT.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT.

3-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

* **Note:**
Do not change the height of the P1 and P4 posts and position of the A/C head.

AFTER REINSTALLING ALL POSTS OR IF ALL POSTS HAVE BEEN TURNED EXTREMELY.

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.

3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST) HEIGHT.

3-2-4. CONFIRMATION OF THE A/C HEAD TILT.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT.

AFTER REINSTALLING THE A/C HEAD.

3-2-4. CONFIRMATION OF THE A/C HEAD TILT.

* **Note:**
Do not change the height of P4 post.

3-2-6. COARSE ADJUSTMENT OF THE A/C HEAD HEIGHT.

3-2-7. ADJUSTMENT OF THE A/C HEAD HEIGHT AND AZIMUTH.

3-2-8. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

3-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

AFTER REINSTALLING THE P4 POST, OR IF THE P4 POST HAS BEEN TURNED EXCESSIVELY.

↓

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

↓

* **Note:**
Adjust the P4 post only.

↓

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT.

↓

* **Note:**
Adjust the P4 post only.

↓

3-2-4. CONFIRMATION OF THE A/C HEAD TILT.

↓

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE PULL-OUT POST (P5 POST).

↓

3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST).

* **Note:**
Do not readjust any other post.

3-2. ADJUSTMENT PROCEDURES

3-2-1. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P1, P2, P3 AND P4)

* Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge..........VFK0190
Nut Driver (Purchase locally)
Post Adjustment Screwdriver..........VFK0329

1. Remove the cassette compartment from the mechanical chassis.
2. Place the Post Adjustment Plate over the reel tables. (Fig. M1)
Confirm that the Post Adjustment Plate is firmly seated.

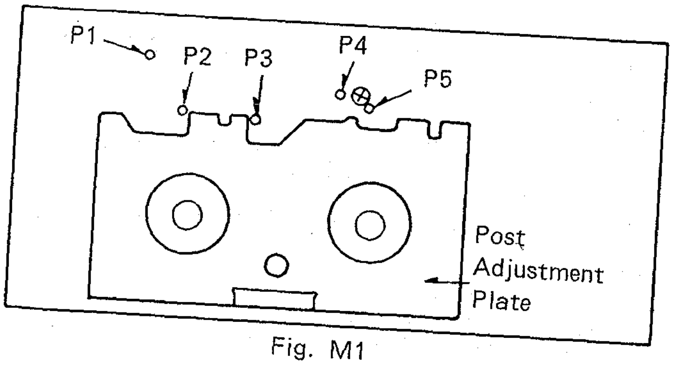


Fig. M1

3. Lower all 4 tape guide posts so that the lower tape guide on each post is below the top surface of the adjustment plate.
Use the post Adjustment screwdriver to lower posts P2 and P3, and the Nut Driver to lower Posts P1, P4 and P5.
4. Place the Reel Table Height Gauge on the Post Adjustment Plate and lower the scraper so that it touches the plate (Fig. M2).

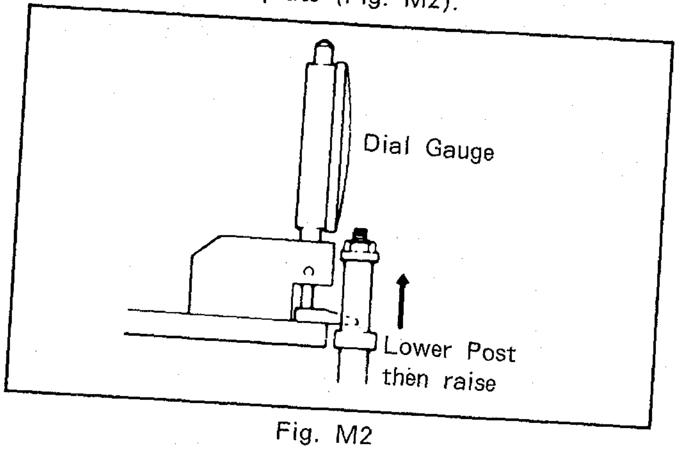


Fig. M2

5. Place the side of the scraper against the each post as shown in Figure M3, set the gauge to zero, then slowly raise the post until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper. (Fig. M3)

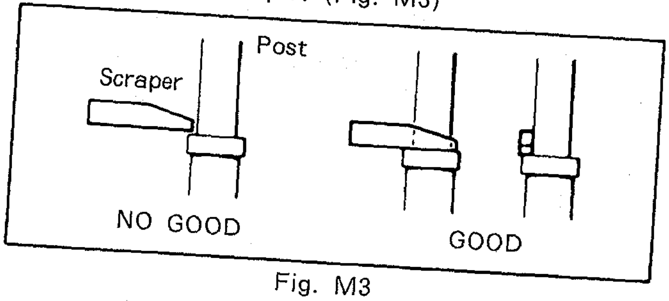


Fig. M3

3-2-2. CONFIRMATION OF THE TAPE TRANSPORT (TAPE GUIDE POSTS)

* Note:

1. The tape guide posts have been precisely adjusted at the factory. Therefore, normally do not change the height of P1, P4 and P5 posts. The following adjustment is required only when replacing the posts.
2. If curling is apparent proceed to the P4 post, wipe dirt from the pressure roller and capatan shaft using a soft cloth impregnated with Freon TF or cleaning liquid.
3. The adjustment of the post height is required only the one which has been replaced.

* Equipment Required
Post Adjustment Screwdriver.....VFK0329
Check Light.....................VFK0343
Nut Driver (Purchase locally)

1. To prevent the alignment tape from being damaged, use a normal cassette tape for this procedure.
Playback the normal cassette tape and confirm that the tape travels without any curling at the edges of all the posts by using the check light. (Fig. M4 and Fig. M5)

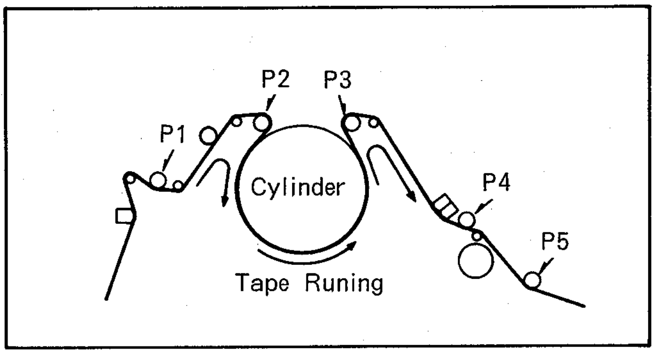


Fig. M4 Tape Transport Posts

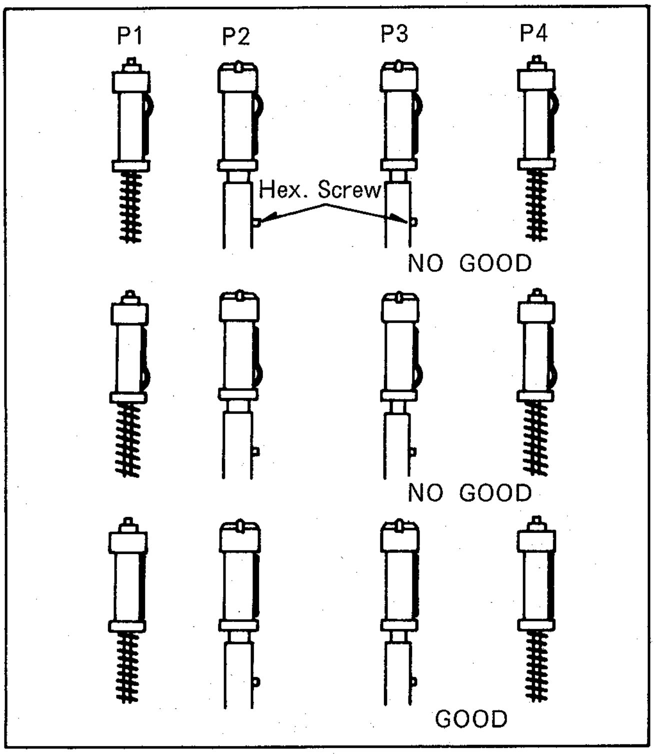


Fig. M5 Tape Guide Posts

2. If curling is apparent, adjust the height of posts by turning the top of post with the post adjustment screwdriver (posts P2 and P3) or the nut-driver (Posts P1 and P4). (Fig. M4 and M5)
3. After adjusting the P4 post, adjustment of the pull-out post (P5) is required.
(Refer to "ADJUSTMENT OF THE PULL-OUT POST HEIGHT".)
4. If the tape curling cannot be corrected by adjusting the tape guide posts, then adjustment of the A/C head tilt may be needed.

3-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5 POST) HEIGHT

* Notes:

1. This adjustment should be performed only after adjusting tape guide post P4 as the height of the pull-out post is based on the height of post P4.

* Tools and Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge........VFK0190
Check Light...................VFK0343
Nut Driver (Purchase locally)

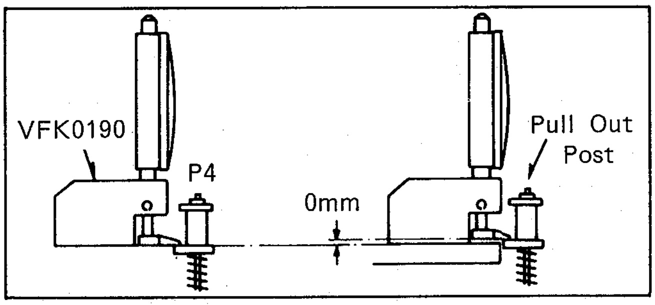


Fig. M6

1. Remove the cassette compartment by unscrewing 4 screws.
2. Place the Post Adjustment plate over the reel tables.
3. Place the Reel Table Height Gauge on the tape guide post P4, lower the scraper so that it touches the lower edges of P4, then set the gauge to zero ("0"). (Fig. M6)
4. Slightly lower the pull-out post by turning the nut on the post clockwise with the nut driver, and set the side of the scraper against the post as shown in FIg. M7.
5. Slowly turn the nut on the post counterclockwise until the gauge reads 0mm. (Fig. M6)
6. Confirm there is no tape curling at P4 post during reverse mode by using the check light.
If tape curling occurs, back to step 3.

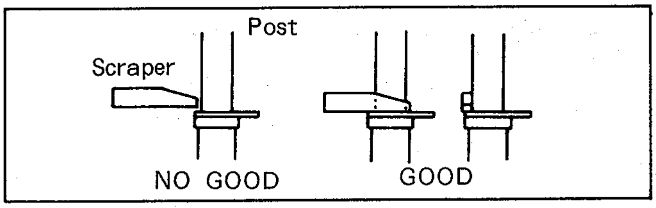


Fig. M7 Post Adjustment

3-2-4. CONFIRMATION OF THE A/C HEAD TILT

* Note:

This procedure should be performed after replacing the A/C head and pressure roller, and adjusting the height of the tape guide post (P4).
(Refer to "COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS".)

* Tools and Eqipment Required:
Hex. Wrench Set..........VFK0326
Nut Driver (purchase locally)

1. Play back the begnning portion of NV−E240 blank cassette tape and confirm that the tape runs between lower and upper limiters of the P4 post. If there is waving or frilling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the screw located behind the A/C head. (Fig. M8)

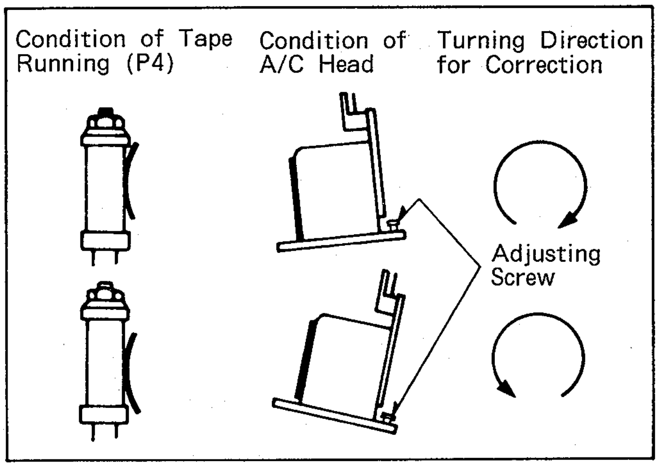

Condition of Tape Running (P4)
Condition of A/C Head
Turning Direction for Correction
Adjusting Screw

Fig. M8

2. If the tape curling cannot be acomplished by adjusting the A/C head tilt, then readjustment of the height of the tape guide post (P4) may be needed.

* Notes:

1. The tape guide post (P4) has been precisely adjusted at the factory. Therefore, normally the tape guide post (P4) readjustment is not required to eliminate the tape curling.
2. After adjusting the A/C head tilt, the A/C head height adjustment is required.

3-2-5. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY)

*Note:
Before playing back the alignment tape, play back a normal cassette tape and confirm correct transport.
(Refer to "CONFIRMATION OF THE TAPE TRANSPORT".)

*Tools and Equipment Required:
Post Adjustment Screwdriver.....VFK0329
Alignment Tape.................VFJ8125H3F

1. Connect the scope to the output of the Head Amp(TP3501) on the Sub Main C.B.A. and TP2001 on the Main C.B.A.
2. Play back the monoscope portion of the alignment tape (VFJ8125H3F).
3. Push both Tracking Control buttons to set the unit at Fix position. Then confirm that the RF envelope is at maximum.
4. IF the RF envelope appears like example "A" or "B" in Fig.M9, then adjustment of tape guide post (P2: Entrance) is necessary.
5. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown "C" in Fig. M9. (See Fig. M12 also)

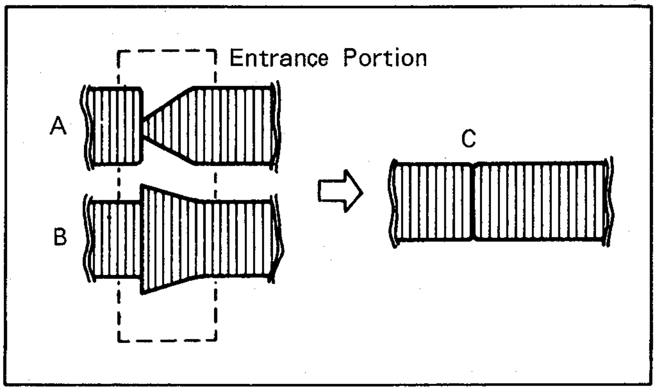


Fig. M9

6. If the RF envelope appears like example "D" or "E" in Fig. M10, then adjustment of the tape guide post (P3 : Exit) is necessary.
7. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in "F" in Fig. M10.

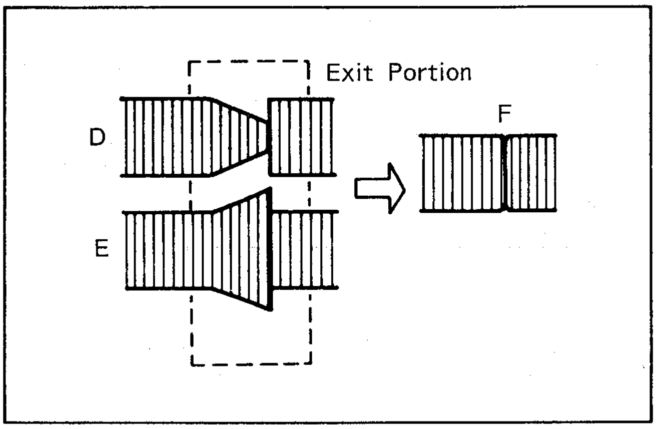


Fig. M10

8. Push the Tracking Control button from end to end. The variation of RF envelope should be nearly parallel as shown in Fig.M11.
9. Push both Tracking Control buttons to set the unit at Fix position. Then confirm that the RF envelope is at maximum.
If the RF envelope does not meet these SPECS, V1/v>=0.7, V2/v>=0.8, then repeat steps 1−9 of item 3−2−5. again (Fig.M13).

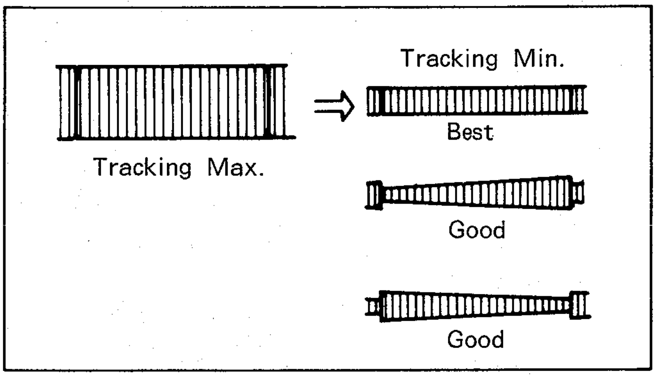


Fig. M11

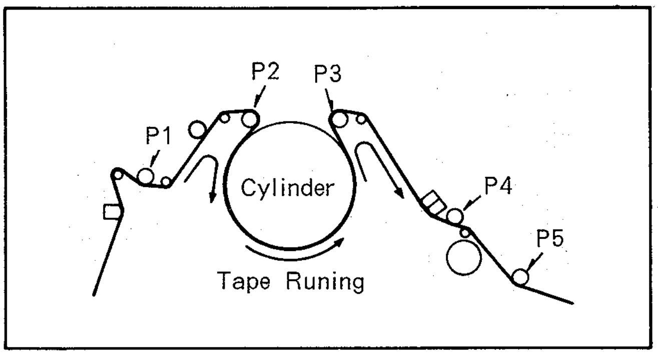


Fig. M12 Loading of post

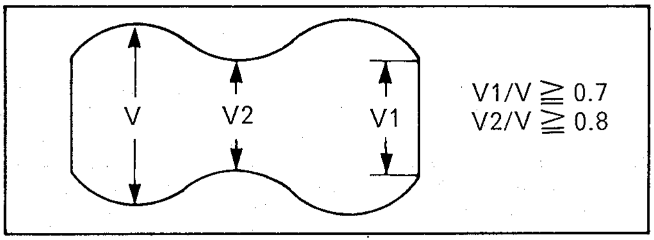


Fig. M13 Spec. of Envelope Figure

10. Push the Tracking Control button from end to end again and set the unit at Fix position by pushing both Tracking Control buttons.
    At the Fix position, the RF envelope signal should be at maximum. If it is not at maximum, "ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION" is necessary. (Refer to "3–2–8. ADJSUTMENT OF THE A/C HEAD HORIZONTAL POSITION".)

3-2-6. COARSE ADJUSTMENT OF THE A/C/ HEAD HEIGHT

* Note:
This procedure should be performed only when the A/C Head is replaced.

* Tools and Equipment Required:
Check Light..........VFK0343
Nut Driver (Purchase locally)

(1) Looking at the lower edge of the control head within the tape running, ensure that lower edge of the tape runs along 0.25mm far from lower edge of the control head. (litte bit up position from lower edge of control head.) If it doesn't, slightly turn the nut (A) in either direction to correct clockwise to lower the head and counterclockwise to raise it.

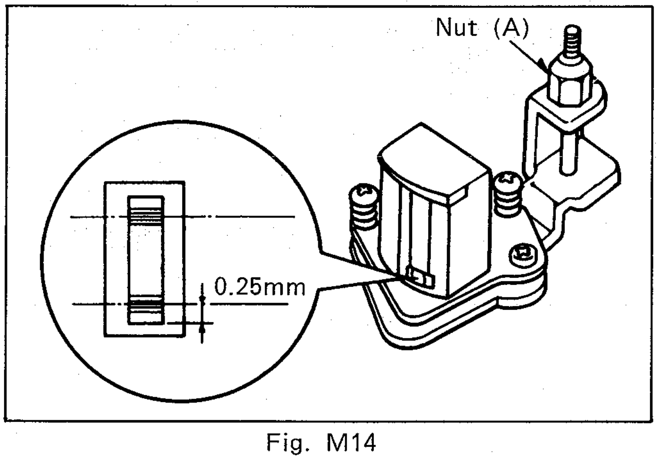


Fig. M14

3-2-7. ADJUSTMENT OF THE A/C HEAD AND AZIMUTH

* Note:
This procedure should be performed only when the A/C Head is replaced and posts hight are readjusted.

* Tools and Equipment Required:
Nut Driver (Purchase locally)
Alignment Tape..........VFJ8125H3F

1. Connect the scope to the audio output. (TP4001)
2. Play back the 2nd portion (Normal Audio 6KHz) of the alignment tape, VFJ8125H3F.
3. Adjust the screw (B) so that the audio output level at TP4001 becomes maximum. (Fig. M15)

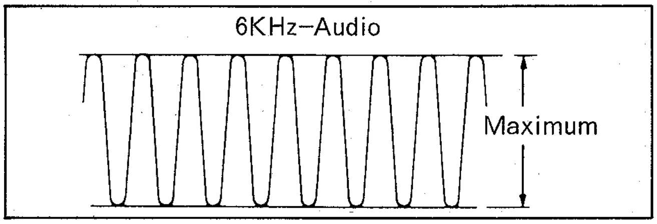


Fig. M15

4. Then adjust the nut (A) so that the audio output level (at TP4001) maximum.

3-2-8. ADJUSTMENT OF A/C HEAD HORIZONTAL POSITION

Note:
This procedure should be performed when A/C head is replaced and after performing the tape interchangeabilaity adjustment.

*Tools and Equipment Required:
H.Position Adj Fixture.....VFK0328
Alignment Tape.............VFJ8125H3F

1. Push both Tracking Control buttons to set the unit at Fix position.
2. Connect the scope to TP3501 on the Sub Main C.B.A. and TP4001 on the Audio C.B.A. for trigger.
3. Play back the Monoscope patern of the alignment tape (VFM8125H3F).
4. Adjust the Adjustment Nut so that the RF envelope output level becomes maximum at the Fix position. (Refer to Fig. M16, M17)
5. Push the Tracking Control button from end to end and set the unit at Fix position by pushing both Tracking Control buttons.
   Confirm that the RF envelope output level is maximized at the Fix position.

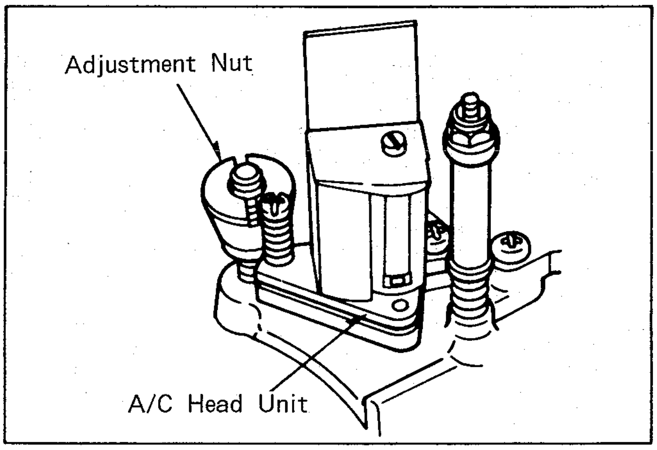


Fig. M16

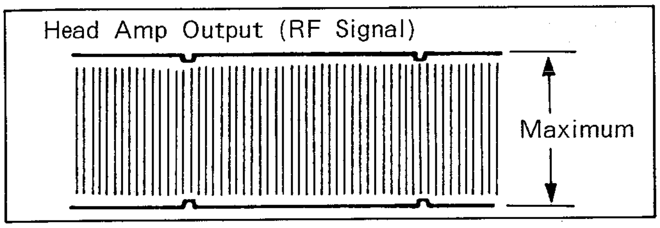

Head Amp Output (RF Signal)
Maximum

Fig. M17

4. OTHER ADJUSTMENT PROCEDURES

4-1. CONFIRMATION OF BRAKE TORQUE

* Equipment Required:
Dial Torque Gauge..........VFK0133
Adaptor for Gauge..........VFK0134
* Specification:——see spec table (Fig. M19).

(1) Remove the cassette compartment by unscrewing 4 screws.
(2) Attach the adaptor to the torque gauge and place the unit in STOP mode.
(3) Place the torque on the reel table. The weight of gauge should not rest on the reel table.

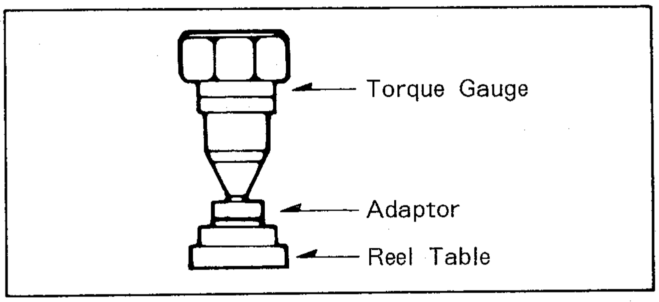
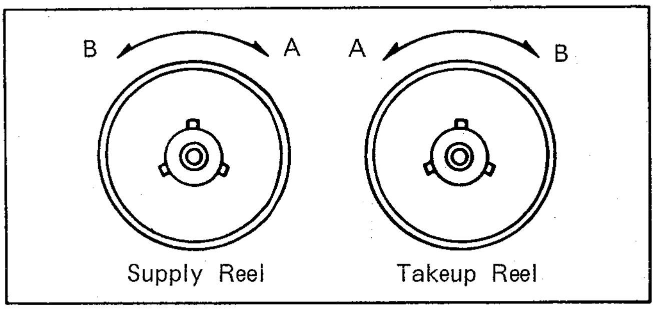

Torque Gauge
Adaptor
Reel Table

Fig. M18

(4) Turn torque gauge in either direction indicated in the Fig. M19, and read the gauge when the brake begins slipping.

Note:

If proper brake torque can not be optained, check the both take–up and supply clutch gear.


B
A
A
B
Supply Reel
Takeup Reel

	A	B
Takeup	28+–8g–cm	28+–8g–cm
Supply	28+–8g–cm	28+–8g–cm

Fig. M19

4-2. TENSION POST POSITION ADJUSTMENT

* Specification : ——————2.4mm~2.9mm

(1) Remove the Cassette Up unit by unscrewing 4 screws. (Refer to the disassembly procedures titled in Removal of the Cassette Up Unit). Place the unit in Play mode by rotating Drive Gear (A) in clockwise shown below.

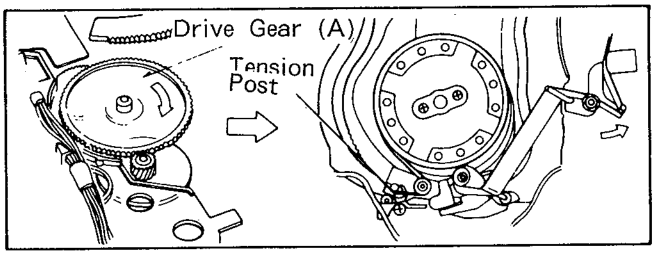

Drive Gear (A)
Tension Post

Fig. M20

Note:

In this case, make sure that the power is not applied.

(2) Loosen the screw (A) a little bit and adjust the Tension Post adjustment plate so that the "Distance (A)" shown below becomes just meet in the specification (2.4m~2.9mm).
(3) Tighten the screw (A) to fix it.

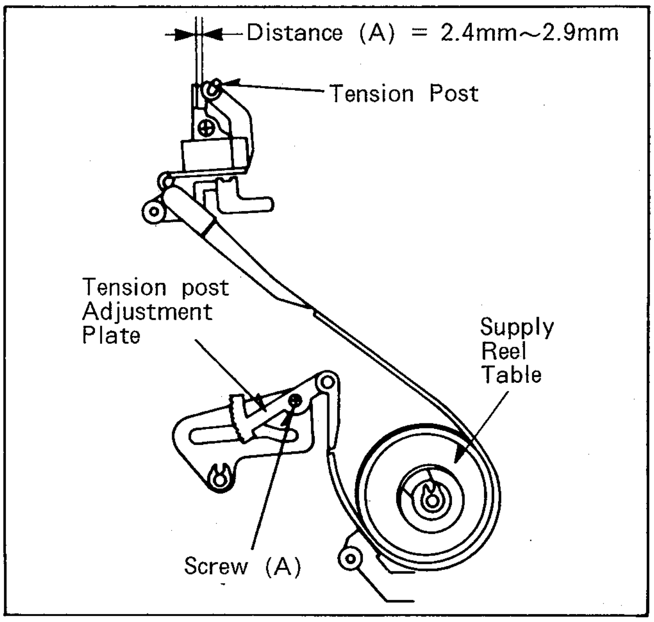

Distance (A) = 2.4mm~2.9mm
Tension Post
Tension post Adjustment Plate
Supply Reel Table
Screw (A)

Fig. M21

4-3. BACK TENSION ADJUSTMENT

* Equipment Required:
Back Tension Meter..........VFK0132
VHS Cassette Tape (120min.)
* Specificcation:——————19~23g

1. Playback the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10~20 seconds)

2. Insert the Back Tension Meter into the path of a tape, and measure the back tension to be within specification as shown in Fig. M22.

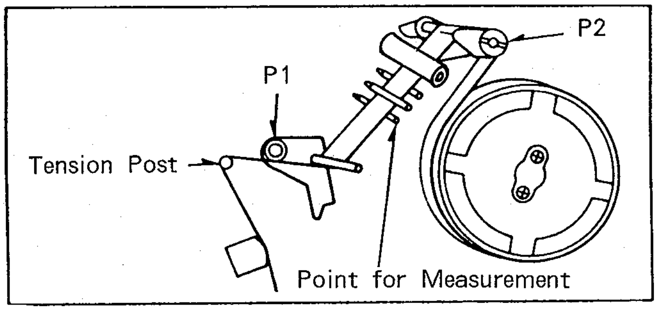


Fig. M22 Measurement of Back Tension

Note:

1. While measuring, make sure that the three probes of the meter are all in good contact with the tape.
2. As the tension meter is very sensitive, we recommend taking 3 separate readings.
3. If it is out of specification, change the spring notch as shown in Fig. M23.

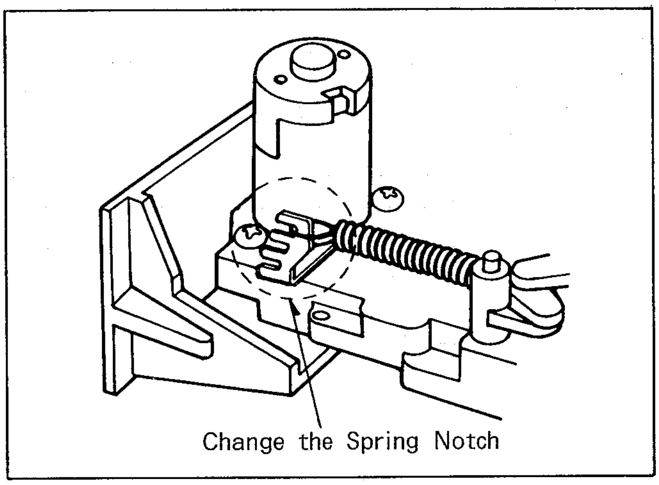


Fig. M23

4-4. REEL TABLES HEIGHT ADJUSTMENT

* Equipment Required:
Post Adjustment Plate..........VFK0191
Reel Table Height Gauge........VFK0190
* Specification−−−−−−−−−−−0∼−0.15mm

Note:

Cut−out on Post Adjustment Plate is reference of reel table height and their height is measured based on this refernce.

1. Place the post adjustment plate on the reels, and put the Gauge on the plate. Set the gauge to zero "0" with the foot scraper of the gauge touching the cut−out portion of the plate.

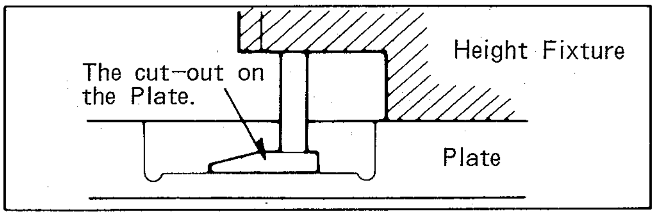


Fig. M24

2. Then measure the height of reel table and confirm the difference just performed in former step as shown below. Do the same way for the other reel table.

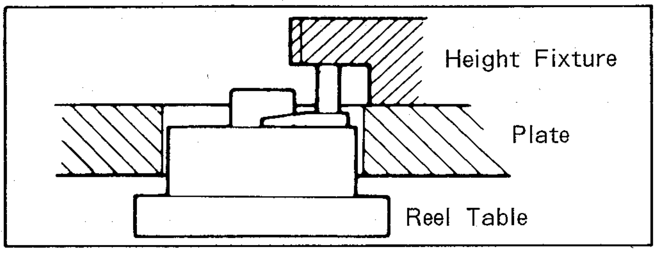


Fig. M25

3. If a height difference in readings between the cut−out portion of plate and reel tables is not 0∼−0.15mm (higher or lower), adjust the height of the reel to obtain specified height.
4. For adjustment add or reduce a washer.

4-5. ADJUSTMENT OF FG HEAD GAP

* Specification:−−−−−−−−−−−0.17∼0.18mm

(1). Slightly loosen the 2 screws.
(2). Put the paper which is used for cover page of this volume into the gap between F.G.Head and Capstan rotor. (The thickness of the cover page is approx 0.17mm)
(3). After adjustment, tighten 2 screws.

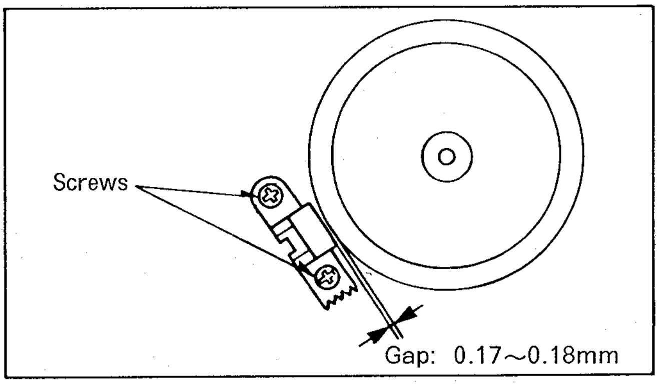


Fig. M26

Note:

Do not touch the surface of rotor and keep any magnetizable material away.

4-6. ASSEMBLY ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are fixed in properly, the unit will be unloaded or compulsorily stopped.
And it will result being damaged at any mechanical or electrical parts.

4-6-1. ASSEMBLY PROCEDURES OF LOADING RINGS AND LOADING GEARS

(1). Install a Loading–Ring T (1) unit and a Loading Gear (B) so that both triangle marks meet each other as shown below.

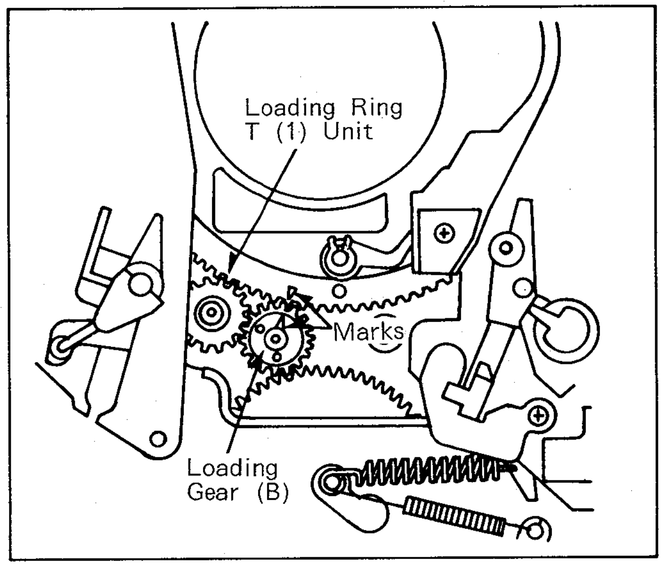


Fig. M27

(2). Install a Loading Gear (A) and next fix a Loading Ring S (1) Unit so that the holes of Loading–Ring S (1) Unit and T (1) Unit meet each other as shown below.

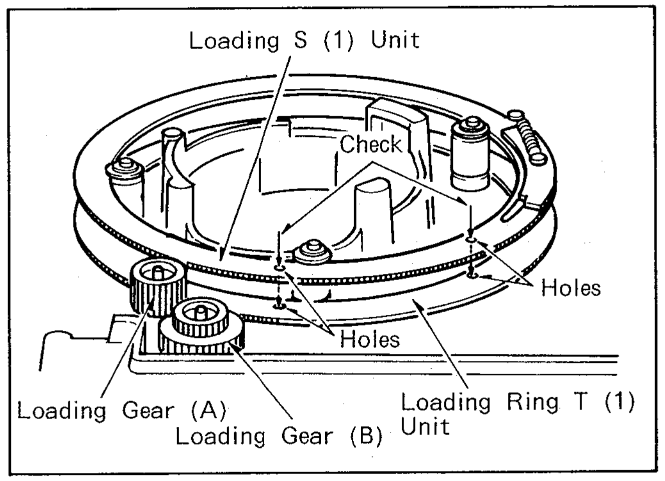


Fig. M28

Note:

Pay attention that the washers are remaining under the loading gears or any other parts.

4-6-2. ASSEMBLY PROCEDURES OF TAKE-UP LOADING GUIDE AND TAKE-UP LOADING POSTS UNIT

(1). Install Loading Guide T Unit and Take–up Post Stopper.
In that time, the small projection of a Loading Link T Unit must be inserted into a gap of Loading Guide T Unit.

(2). Fix a Take–up side Loading Post Unit holding the small projection of the Loading Link T Unit and install a T Shaft Holder Unit.

4-6-3. ASSEMBLY PROCEDURES OF SUPPLY LOADING GUIDES AND SUPPLY LOADING POST UNIT

(1). Install 2 Supply Loading Guides screwing 4 screws.

(2). Slide a Supply Loading Post Unit into a gap between the Loading Guide S1 and S2 hooking a Connection Rod to a Connection Tie Unit as shown below.

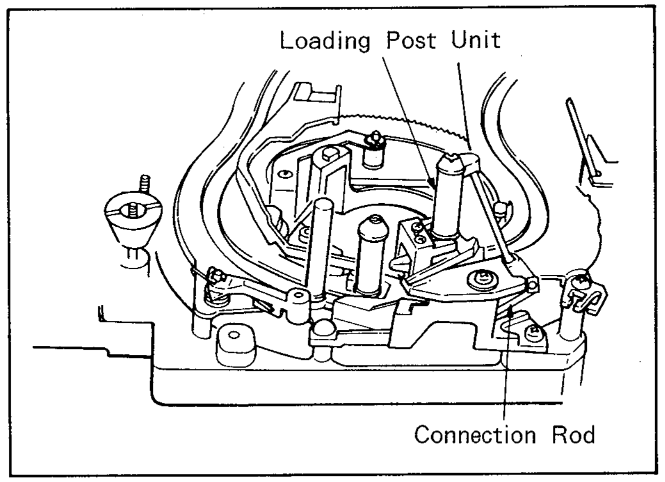


Fig. M29

(3). Set the Supply Loading Post Unit into unloading position by turning a intermediate pully gear as shown below.

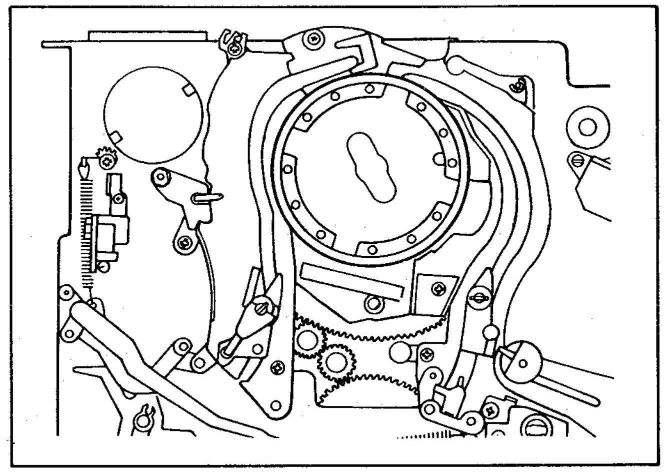


Fig. M30

(4). Install a V Stopper Base and Supply Post Stopper.

4-6-4. ASSEMBLY PROCEDURES OF MAIN ROD.

(1). Place a Main Rod inserting 3 Thrust Washers and then insert 3 washers.
After that, fix them using 2 retaining rings as shown below.

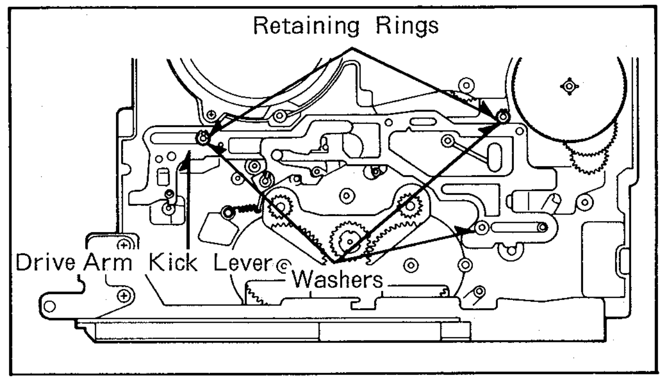


Fig. M31

(2). Install a Drive Arm Kick Lever hooking a Drive Arm Kick Lever Spring and fix it using ring.

4-6-5. ASSEMBLY PROCEDURES OF CAM GEAR AND SECTOR

(1). Make sure that the hole on a Main Rod just should coincide with the hole on chassis as shown below and install a Cam Gear should coincide with he hole between a Cam Gear and the chassis. Then install a retaining ring.

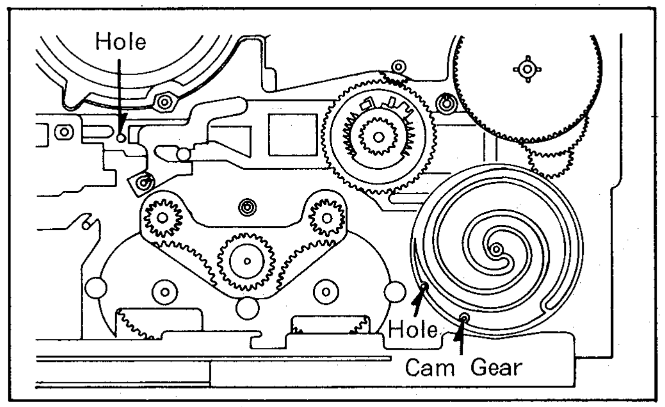


Fig. M32

(2). Install a Loading Gear (C) keeping the relation as shown below.

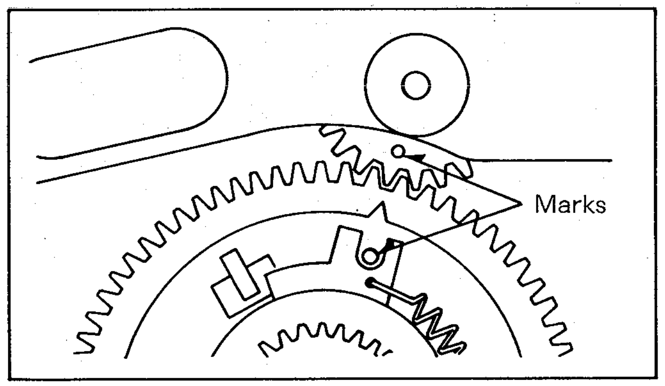


Fig. M33

(3). Install a Sector Gear as shown below.

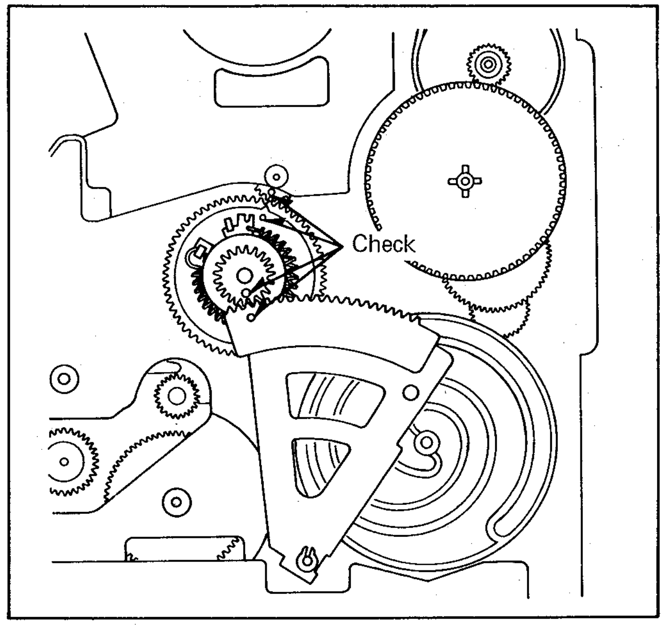


Fig. M34

(4). Fix a SG Limiter by 2 retaining rings.

4-6-6. ASSEMBLY PROCEDURES OF MODE SWITCH

(1). Perform this procedures after confirming the complete setting of mechanical parts.
First of all confirm that the hole on a Main Rod is meeting with a hole on a chassis.

(2). Move the moving contact of a Mode Select Switch into Stop position as shown below.

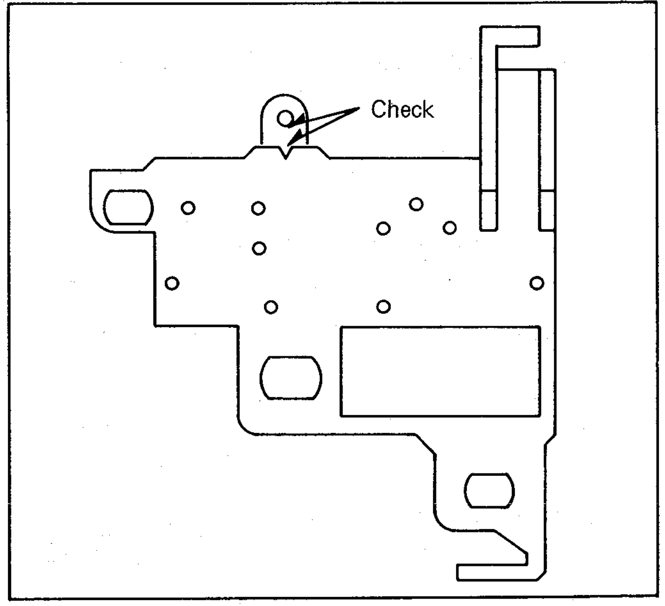
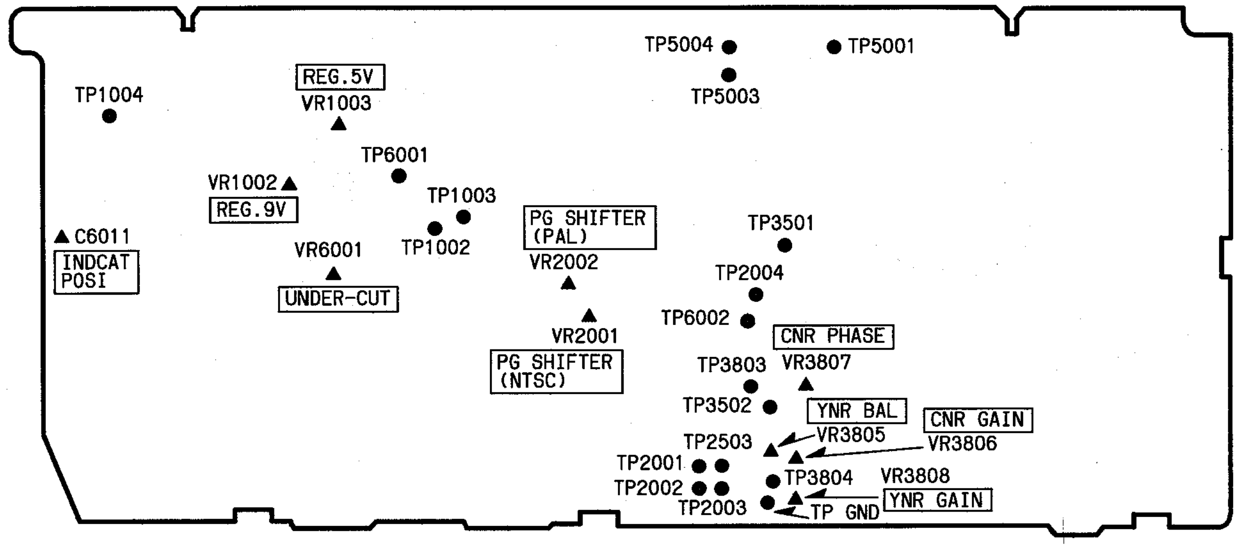


Fig. M35

(3). Install the Mode Select Switch keeping these relation written in item (1) and (2) by screwing 2 screw.

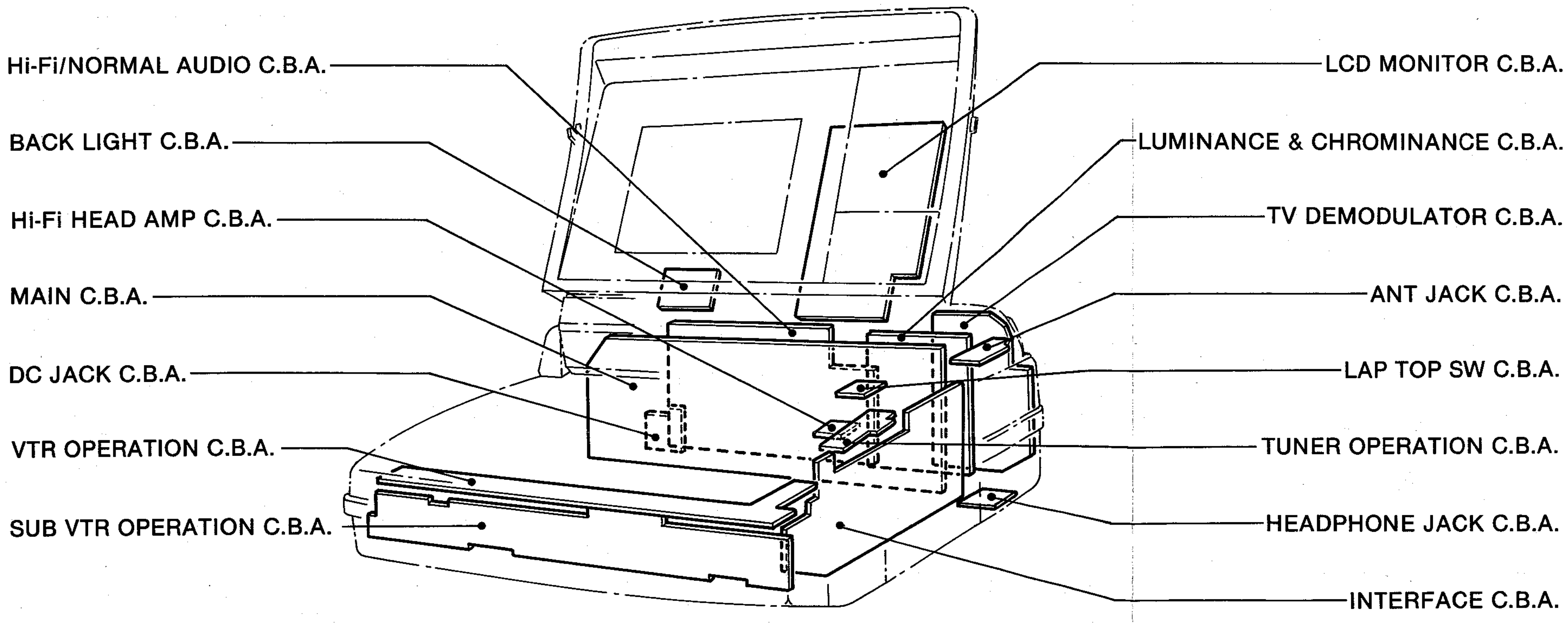
LOCATION OF TEST POINTS & CONTROLS

MAIN C.B.A.

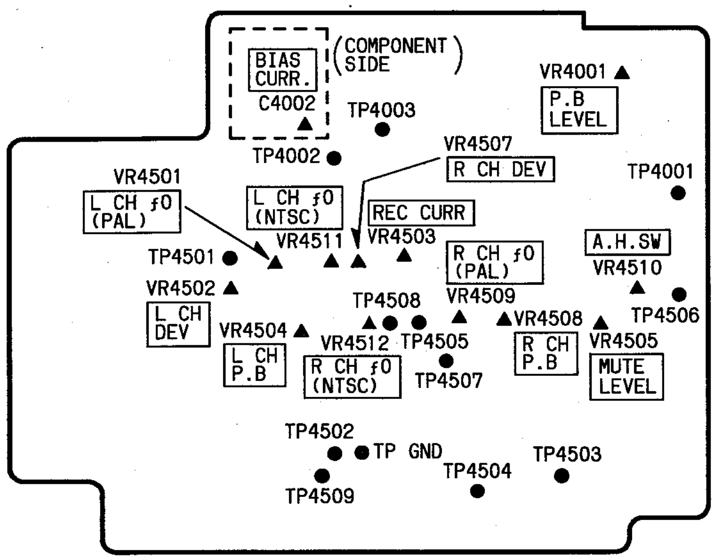

TP5004
TP5001
TP5003
TP1004
REG.5V
VR1003
TP6001
VR1002
REG.9V
TP1003
TP1002
C6011
INDCAT POSI
VR6001
UNDER-CUT
PG SHIFTER (PAL)
VR2002
TP3501
TP2004
TP6002
VR2001
CNR PHASE
PG SHIFTER (NTSC)
TP3803
VR3807
TP3502
YNR BAL
CNR GAIN
TP2503
VR3805
VR3806
TP2001
TP2002
TP3804
VR3808
YNR GAIN
TP2003
TP GND

(FOIL SIDE)

CIRCUIT BOARD LAYOUT

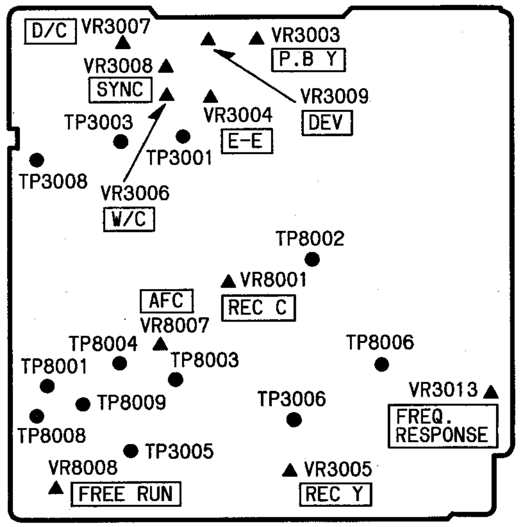

Hi-Fi/NORMAL AUDIO C.B.A.
BACK LIGHT C.B.A.
Hi-Fi HEAD AMP C.B.A.
MAIN C.B.A.
DC JACK C.B.A.
VTR OPERATION C.B.A.
SUB VTR OPERATION C.B.A.
LCD MONITOR C.B.A.
LUMINANCE & CHROMINANCE C.B.A.
TV DEMODULATOR C.B.A.
ANT JACK C.B.A.
LAP TOP SW C.B.A.
TUNER OPERATION C.B.A.
HEADPHONE JACK C.B.A.
INTERFACE C.B.A.

Hi-Fi/NORMAL AUDIO C.B.A.


BIAS CURR.
C4002
(COMPONENT SIDE)
TP4003
VR4001
P.B LEVEL
TP4002
VR4507
R CH DEV
TP4001
VR4501
L CH ƒ0 (PAL)
L CH ƒ0 (NTSC)
VR4511
REC CURR
VR4503
A.H.SW
VR4510
TP4501
R CH ƒ0 (PAL)
VR4502
L CH DEV
TP4508
VR4509
VR4508
TP4506
VR4504
VR4512
TP4505
R CH P.B
VR4505
L CH P.B
R CH ƒ0 (NTSC)
TP4507
MUTE LEVEL
TP4502
TP GND
TP4504
TP4503
TP4509

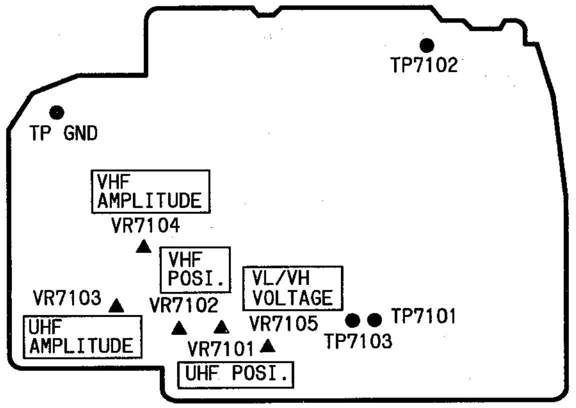
(FOIL SIDE)

LUMINANCE & CHROMINANCE C.B.A.


D/C
VR3007
VR3003
P.B Y
VR3008
SYNC
VR3009
DEV
TP3003
VR3004
E-E
TP3001
TP3008
VR3006
W/C
TP8002
VR8001
AFC
REC C
VR8007
TP8004
TP8006
TP8001
TP8003
VR3013
TP8009
TP3006
FREQ. RESPONSE
TP8008
TP3005
VR8008
VR3005
FREE RUN
REC Y

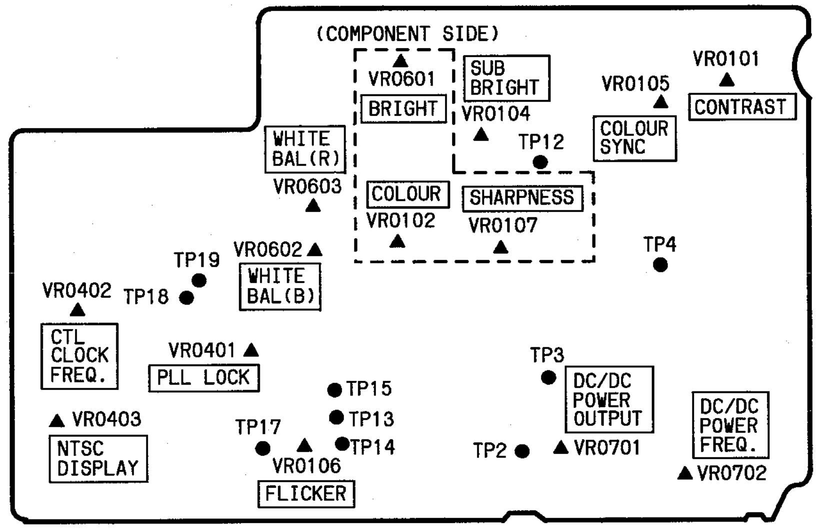
(FOIL SIDE)

TV DEMODULATOR C.B.A.


TP7102
TP GND
VHF AMPLITUDE
VR7104
VHF POSI.
VL/VH VOLTAGE
VR7103
VR7102
VR7105
TP7101
UHF AMPLITUDE
VR7101
TP7103
UHF POSI.

(COMPONENT SIDE)

LCD MONITOR C.B.A.


(COMPONENT SIDE)
VR0601
SUB BRIGHT
BRIGHT
VR0104
VR0105
VR0101
CONTRAST
COLOUR SYNC
TP12
WHITE BAL(R)
VR0603
COLOUR
VR0102
SHARPNESS
VR0107
TP4
TP19
VR0602
VR0402
TP18
WHITE BAL(B)
CTL CLOCK FREQ.
VR0401
PLL LOCK
TP15
TP3
DC/DC POWER OUTPUT
VR0403
TP13
DC/DC POWER FREQ.
NTSC DISPLAY
TP17
TP14
VR0106
FLICKER
TP2
VR0701
VR0702

(FOIL SIDE)

2-5. ELECTRICAL ADJUSTMENT PROCEDURES

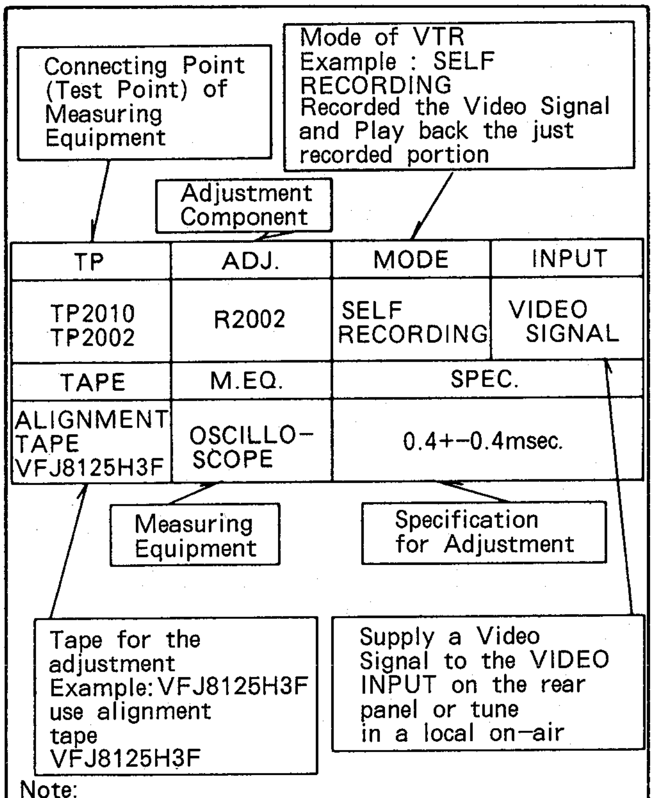
This is section provides complete electrical adjustment procedures which may be required for electronic circuits of Video Cassette Recordsers NV-FV1 B/E.

2-5-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range : 0.001 ~ 50V
2. Dual-Trace Oscilloscope
   Voltage Range : 0.005 ~ 50V/div.
   Frequency Range : DC-30MHz
   Probes : 10:1
3. Frequency counter
   Frequency Range : 0 ~ 10MHz
4. Signal Generator (Sinewave)
   Frequency Range : 0 ~ 500KHz
5. Video Sweep Gemerator
   Frequency Range : 0 ~ 10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (PAL:VFJ8125H3F)
9. VHS Alignment Tape (NTSC:VFM8080HQFP)
10. VHS Blank Tape

2-5-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Example : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adjustment Component
TP
ADJ.
MODE
INPUT
TP2010
TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO-SCOPE
0.4+-0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment
Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

Note:
If ☒ appears in any block, this means it is not used or not important.

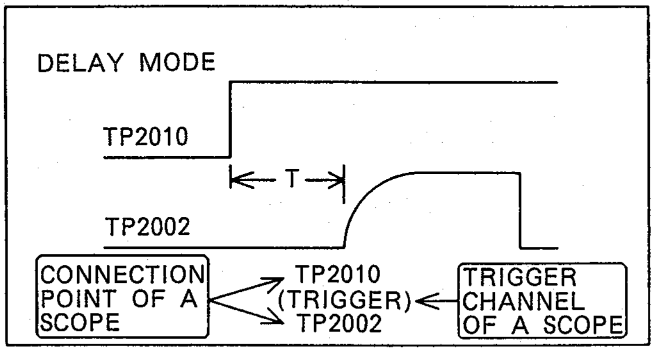

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E0

(Note)
Before the electrical adjustment, set the VTR as following cinditions except for especial instructions in each adjustment item.

1. Picture Brightness VR ... Centre position
2. Tape Speed Selector ... SP position
3. Input Signal Selector ... LINE position
4. Edit Switch ... OFF position

POWER Section

2-5-3. REG. 5V ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP1003	VR1003	REC	☒
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	D.V.M.	5.1+-0.025V	

2-5-4. REG. 9V ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP1002	VR1002	REC	☒
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	D.V.M.	8.6+-0.05V	

SERVO Section

2-5-5. PG SHIFTER ADJUSTMENT (NTSC)

TP	ADJ.	MODE	INPUT
TP2001 TP3502	VR2001	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFM8080 HQFP)	OSCILLO-SCOPE	6.5+-0.5H	

(NOTE)
PAL/NTSC SW : NTSC

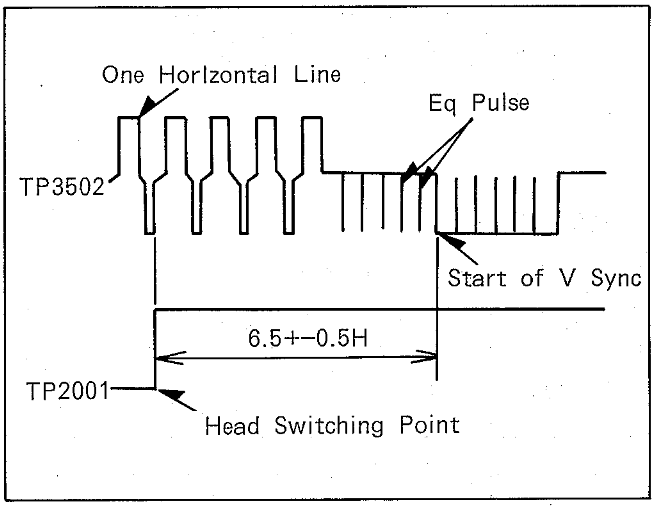

One Horlzontal Line
Eq Pulse
TP3502
Start of V Sync
6.5+-0.5H
TP2001
Head Switching Point

Fig. E1

2-5-6. PG SHIFTER ADJUSTMENT (PAL)

TP	ADJ.	MODE	INPUT
TP2001 TP3502	VR2002	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFM8125 H3F)	OSCILLO-SCOPE	6.5+-0.5H	

(NOTE)
(1) PAL/NTSC SW : PAL
(2) AFter adjusting PG Shifter for NTSC signal, perform this adjustment.

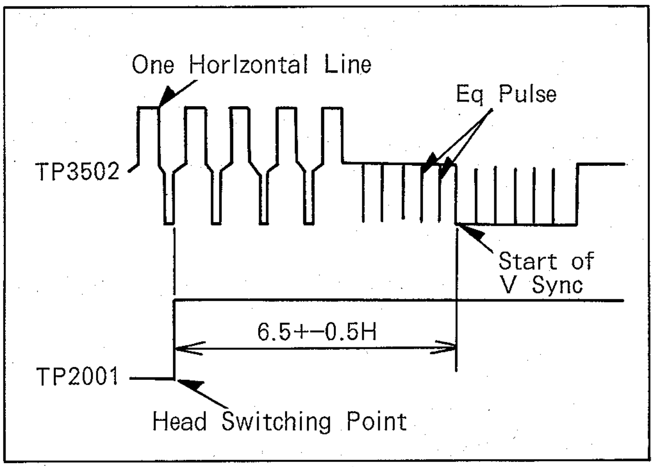

One Horlzontal Line
Eq Pulse
TP3502
Start of V Sync
6.5+-0.5H
TP2001
Head Switching Point

Fig. E2

SYSTEM CONTROL Section

2-5-7. UNDER-CUT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP6001	VR6001	REC	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	JUST(H)-(L)	

(1) Supply the external power to battely terminal. And place the unit to CAMERA Recorking mode.
(2) Supply 10.5+-0.05V to P1001-2.(GND:P1001-1)
(3) Turn VR6001 gardually to clockwise so that High(H) Voltage becomes Low(L) voltaage.
(4) Just stop turning VR6001 turning VR6001 when changing the voltage form High(H) to Low(L).

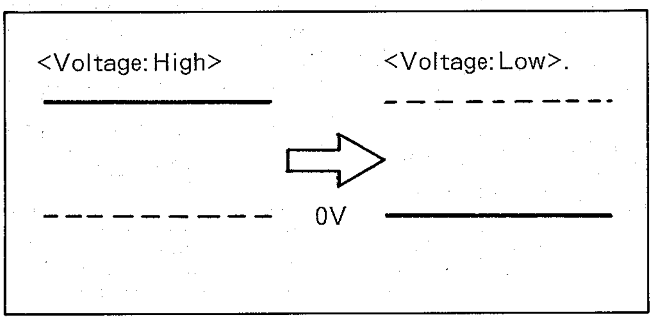


Fig. E3

(CONFIRMATION)
Confirm the change of voltage from (H)-(L) at TP6001 when varing the P1001-2 voltage from 12.0V to 10.5+-0.2-0V

2-5-8. INDICATING POSITION ADJUSTMENT ON MONITOR

TP	ADJ.	MODE	INPUT
LCD MONITOR	C6011	STOP	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	LCD MONITOR		

(1) Turn no OSD sw.
(2) Position "-F" as shown Fig.E4 on LCD Monitor.

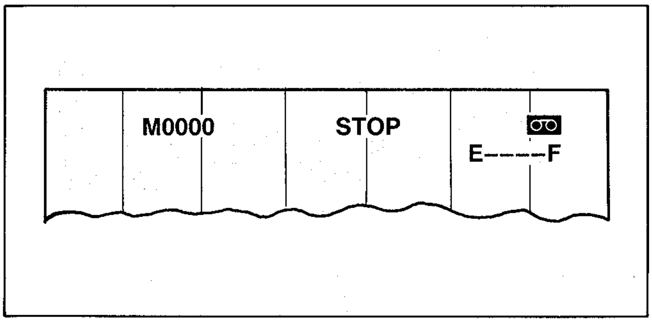


Fig. E4

LUMINANCE & CHROMINANCE Section

2-5-9. VIDEO E-E LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3502	VR3004	STOP	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	A=2.0+-0.1Vp-p B=1.2+-0.1Vp-p	

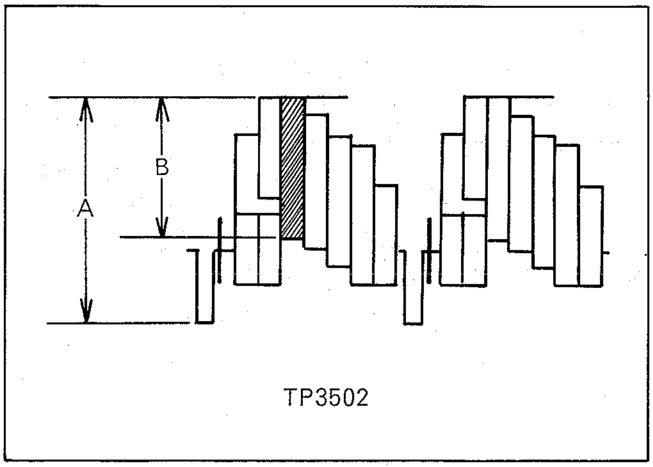


Fig. E5

2-5-10. DARK CLIP/WHITE CLIP ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3001	VR3006 VR3007	STOP	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	A=188+-5% B=155+-5%	

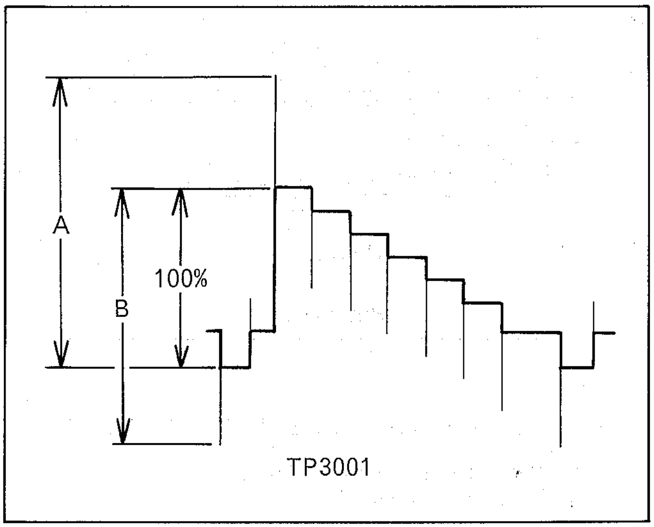


Fig. E6

2-5-11. SYNC CHIP FREQUENCY / DEVIATION ADJUSTMENT

(A) SYNC CHIP FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3006	VR3008	REC	
TAPE	**M. EQ.**	**SPEC.**	
	FREQ COUNTER	3.8+-0.05 MHz	

(B) DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
P5003-2 (HOT) P5003-1 (GND)	VR3009	REC/ PLAY	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE / FREQ. COUNTER	INNER BEAT IS MAXIMUM	

(1) Supply colour bar Video signal.
(2) Connect a signal generator (sine wave) to TP3006 on Main C.B.A. and set frequency and output level of it as follows.
Frequency : 4.8MHz+–0.05MHz
Output : 0.1Vp–p
(3) Connect the oscilloscope to P5003–2 (HOT) and P5003–1 (GND) and it uses a trigger at TP2001.
(4) Adjust VR3009 so that inner beat at White portion of colour bar becomes maximum.

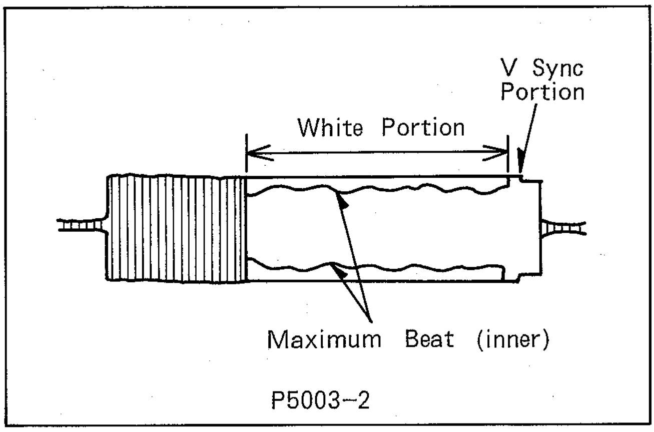


Fig. E7

2–5–12. RECORDING CURRENT ADJUSTMENT

(A). CHROMINANCE RECORDING CURRENT ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP5003 (HOT) TP5004 (GND)	VR8001	REC	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	30+–5mVp–p	

(1) Connect the Oscilloscope to TP5003(HOT) AND TP5004(GND).
(2) Eliminate Luminance Signal by turning VR3005.
(3) Adjust VR8001 so that Chrominance level becomes 30+–5mVp–p.

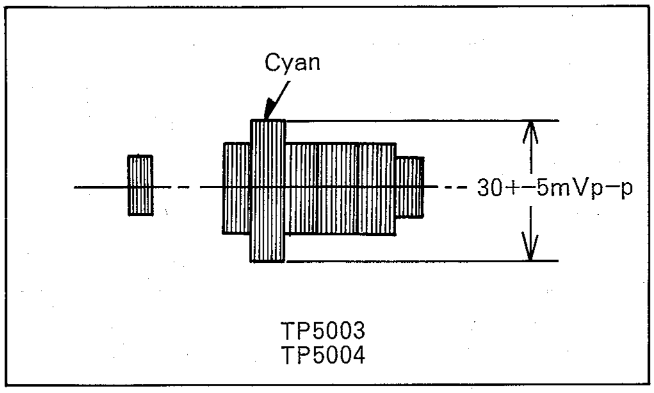


Fig. E8

(B). LUMINANCE RECORDING CURRENT ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP5003 (HOT) TP5004 (GND)	VR3005	REC	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	120+–5mVp–p	

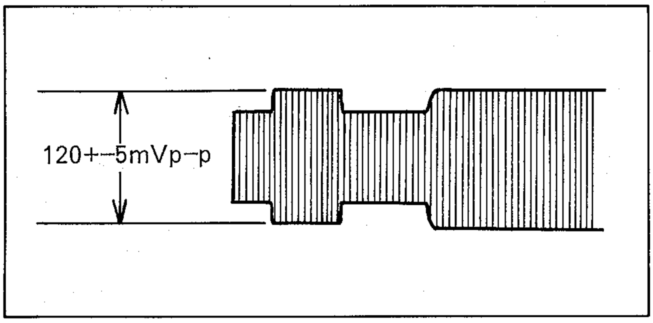


Fig. E9

2–5–13. VCO FREE RUN FREQUENCY ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP8004	VR8007	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQ. COUNTER	623+–15 KHz	

(1) Connect the Frequency counter to TP8004.
(2) Connect the jumper wire between TP8003, TP8002 and TP8001(GND).
(3) Adjust the VR8007 so that Frequency becomes 623+–15 KHz.

2–5–14. Y–NR GAIN ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP3008	VR3808	STOP	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	800+–10mVp–p	

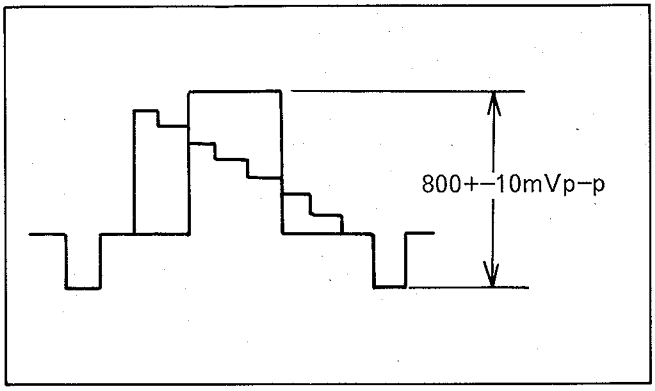


Fig. E10

2–5–15. Y–NR BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3804	VR3805	STOP	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
╳	OSCILLO–SCOPE	LESS THAN 16mVp–p	

(1) Connect the oscilloscope to TP3804.
(2) Adjust the VR3805 so that A level becomes less than 16 mVp–p.

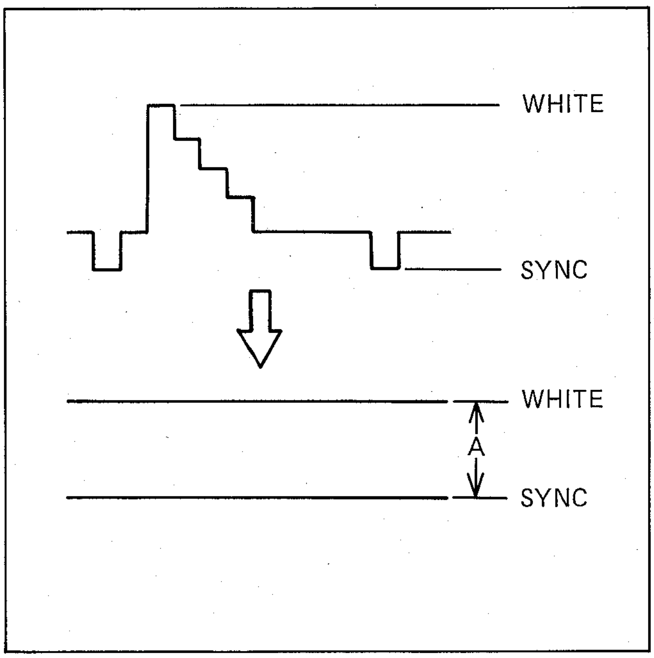

WHITE
SYNC
WHITE
A
SYNC

Fig. E11

2–5–16. VIDEO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3502	VR3003	SELF RECORDING	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO–SCOPE	A=2.0+–0.1 Vp–p B=1.0+–0.15Vp–p	

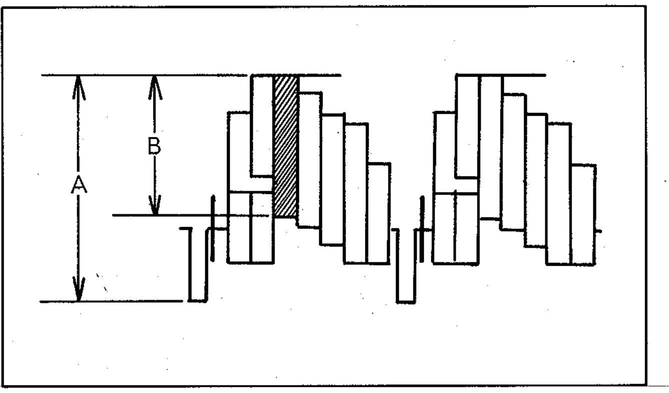
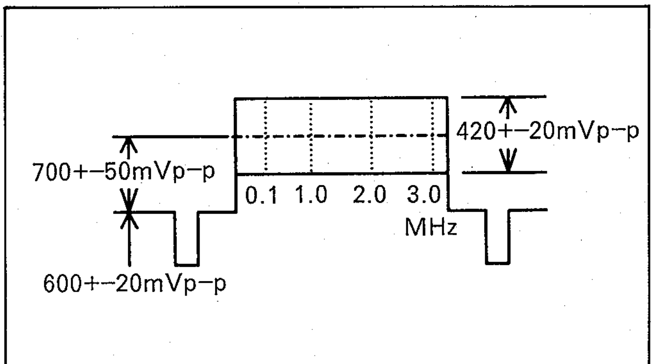


Fig. E12

2–5–17. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3502	VR3013	SELF RECORDING	VIDEO SWEEP
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	VIDEO SWEEP/ OSCILLO–SCOPE	A:B=0:0+–1dB	

(1) Set the Sweep generator output as shown in below.


420+–20mVp–p
700+–50mVp–p
0.1 1.0 2.0 3.0
MHz
600+–20mVp–p

CONDITIONS : BURST SIGNAL OFF

Fig. E13

(2) Adjust the VR3013 so that the waveform becomes A:B=0:0+−1dB.

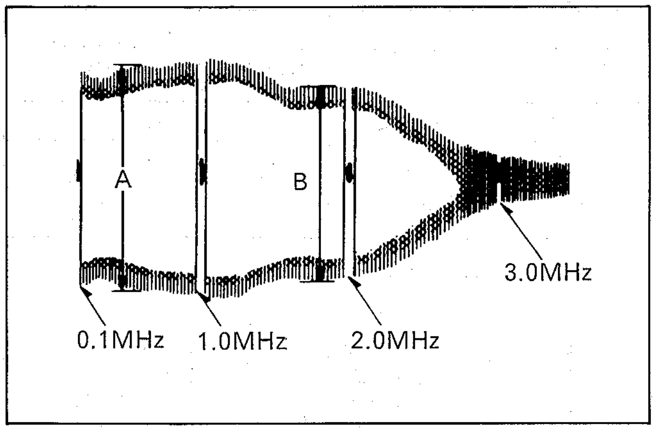


Fig. E14

2−5−18. C−NR ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3803	VR3806 VR3807	SELF RECORDING	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	MINIMUM AS POSSIBLE	

(1) Connect the oscilloscope to TP3803.
(2) Adjust the VR3806 and VR3807 so that the output level is minimized.

2−5−19. AFC FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP8008	VR8008	REC	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	FREQ. COUNTER	15735+−100 Hz	

(1) Supply the voltage 5V (TP1003) to TP8009.
(2) Connect the frequency counter to TP8008 for measuring.
(3) Adjust the VR8008 so that the frequency becomes 15735+−100 Hz.

NORMAL AUDIO Section

2−5−20. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (HOT) TP4003 (GND)	C4002	REC	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.6+−0.1mVrms	

2−5−21. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	SELF RECORDING	1KHz −10dBV
TAPE	**M. EQ.**	**SPEC.**	
BALNK TAPE	V.T.V.M.	−8+−1dB	

(NOTE)
(1) AUDIO MODE SW : NORMAL MODE
(2) PB SELECT SW : PAL MODE

Hi-Fi AUDIO Section

2−5−22. CHARRIEA FREQUENCY f0 ADJUSTMENT (PAL)

TP	ADJ.	MODE	INPUT
TP4504(L) TP4503(R)	VR4501(L) VR4509(R)	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQ COUNTER	1400+−10 KHz(L) 1800+−10 KHz(R)	

2−5−23. CARRIER FREQUENCY f0 ADJUSTMENT (NTSC)

TP	ADJ.	MODE	INPUT
TP4504(L) TP4503(R)	TP4511(L) TP4512(R)	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	RFEQ. COUNTER	1300+−10 KHz(L) 1700+−10 KHz(R)	

(NOTE)
(1) After adjusting PAL Carrier Frequency fo, perform this adjustment.
(2) Connect the jumper mire between P6011−1 and P6011−2.

2-5-24. DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC4502-5 (L) IC4502-28 (R)	VR4502 (L) VR4507 (R)	REC / PLAY	1kHz, -20dBV AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR / D.V.M.	160mVp-p	

(1) Set the output (600 ohm terminated) of the signal generator to 1KHz/-20dBV.
(2) Adjust VR4502 to 160mVp-p at Pin5 of IC4502.
(3) Adjust VR4507 to 160mVp-p at Pin28 of IC4502.

(Note)
Repeat this adjustment in REC/PLAY mode so that the level of Ic4502-5,28 become 160mVp-p.

2-5-25. FM AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
BPTH END OF P5503(2): HOT P5503(1): COLD	VR4503	REC	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	A=270+-10 mVp-p	

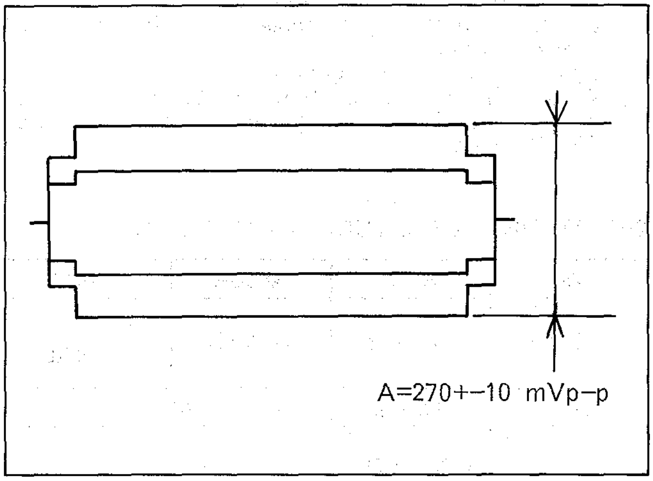


Fig. E15

2-5-26. FM AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4506 TP2001	VR4510	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT VFJ8125-H3F	OSCILLO-SCOPE	A=6.50+-0.05 ms	

(NOTE)
PB SELECT SW : PAL Mode

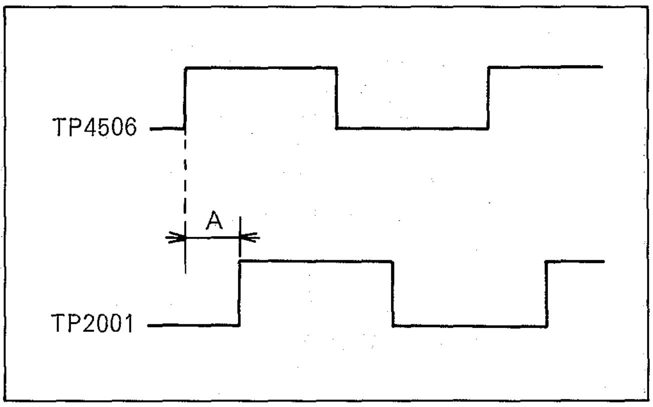


Fig. E16

2-5-27. FM AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4504(L) VR4508(R)	SELF RECORDING	1KHz -10dBV
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	EE LEVEL+-0.5dB (L) EE LEVEL+-0.5dB (R)	

2-5-28. MUTING LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507	VR4505	SELF RECORDING	1kHz, -10dB (316mVp-p) AUDIO SIG.
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	DC LEVEL=2V	

(NOTE)
Before this adjustment, tape interchangeability adjustment should be completed.

(1) Adjust the luminance rec current for 150mVp−p.
(2) Set the select switch to "Hi−Fi".
(3) Record the audio signal (1KHz/−10dB) and play back just recorded portion.
(4) Preadjust the VR4505 until the DC voltage is changed in to low level at TP4507.
(5) Then adjust slowly VR4505 so that the DC voltage comes at 2V as shown in Fig. E13.
(6) Adjust the luminance rec current for 120mVp−p.

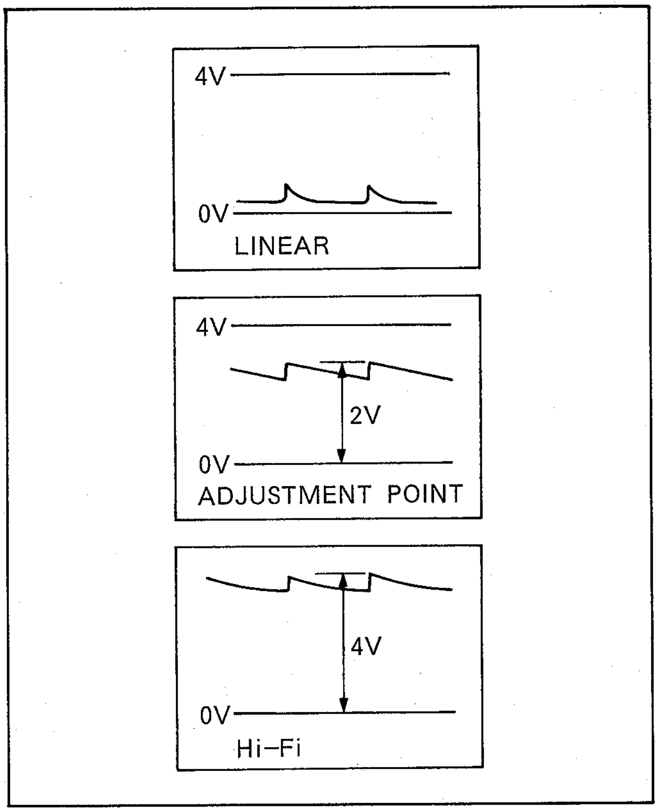


Fig. E17

TV DEMODULATOR Section

2−5−29. L/H SELECT VOLTAGE

TP	**ADJ.**	**MODE**	**INPUT**
TP7101 TP7102	VR7105	TUNER	RF SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
╳	D.V.M.	SHOWN BELOW	

(1) TUNER SELECT SW : VHF
(2) Receive CH−2 RF signal.
(3) Connect the D.V.M. to TP7101.
(4) Adjust the VR7105 so that DC voltage becomes 2.6+−0.1V.
(5) Connect the D.V.M. to TP7102.
(6) Recieve CH−5 RF signal.
(7) Measure and memorize the voltage (V.CH5) at TP7102.
(8) Connect the D.V.M. to TP7101.
(9) Adjust the VR7105 so that the voltage becomes V.CH5−0.20+−0.02V.
(10) Confirm the condition of receiving all channels.

2−5−30. VHF AMPLITUDE ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP7103	VR7103	TUNER	RF SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
╳	OSCILLO−SCOPE	2.15Vp−p	

(1) TUNER SELECT SW : VHF
(2) Receive CH−2 RF signal.
(3) Adjust the VR7103 so that the VHF Amplitude becomes 2.15Vp−p.

2−5−31. VHF POSITION ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
MONITOR	VR7102 VR7104	TUNER	RF SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
╳	MONITOR	SHOWN BELOW	

(1) TUNER SELECT SW : VHF
(2) Receive CH−2 RF signal.
(3) Adjust the VR7102 so that CH−2 indication bar on the Monitor just appears at the graduated CH−2 position.
(4) Receive CH−12 RF signal.
(5) Adjust the VR7104 so that CH−12 indication bar on the Monitor jsut appears at the graduated CH−12 position.

2−5−32. UHF AMPLITUDE ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP7103	VR7103	TUNER	RF SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
╳	OSCILLO−SCOPE	1.70Vp−p	

(1) TUNER SELECT SW : UHF
(2) Receive CH−21 RF signal.
(3) Adjust the VR7103 so that the UHF Amplitude becomes 1.70Vp−p.

2–5–33. UHF POSITION ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR	VR7101 VR7103	TUNER	RF SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
	MONITOR	SHOWN BELOW	

(1) TUNER SELECT SW : UHF
(2) Receive CH–21 RF signal.
(3) Adjust the VR7101 so that CH–21 indication bar on the Monitor just appears at the graduated CH–21 position.
(4) Receive CH–69 RF signal.
(5) Adjust the VR7103 so that CH–69 indication bar on the Monitor just appears at the graduated CH–69 position.

LCD MONITOR Section

2–5–34. DC/DC POWER FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2	VR0702		
TAPE	**M. EQ.**	**SPEC.**	
	FREQ. COUNTER	74.0+–1.0 KHz	

2–5–35. DC/DC POWER OUTPUT VOLTAGE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3	VR0701		
TAPE	**M. EQ.**	**SPEC.**	
	D.V.M.	5.0+–0.02V	

2–5–36. CONTRAST ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP14	VR0101	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO SCOPE	A=3.0+–0.05Vp–p	

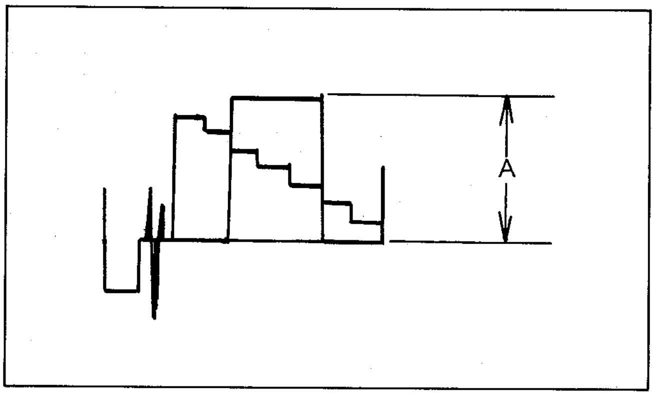


Fig. E18

(1) Turn the colour Control VR on the LCD Monitor unit so that the colour component of Colour Bar signal is closed.
(2) Connect the oscilloscope to TP14.
(3) Perform the Sub Brightness Adjustment tentatively.
(4) Adjust the VR0101 so that A becomes 3.0+–0.05Vp–p.

(NOTE)
The Colour Bar signal is inverted at every horizontal line at the cemter of 7.2V.

2–5–37. SUB BRIGHTNESS ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP14	VR0104	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO–SCOPE	A=2.0+–0.1V	

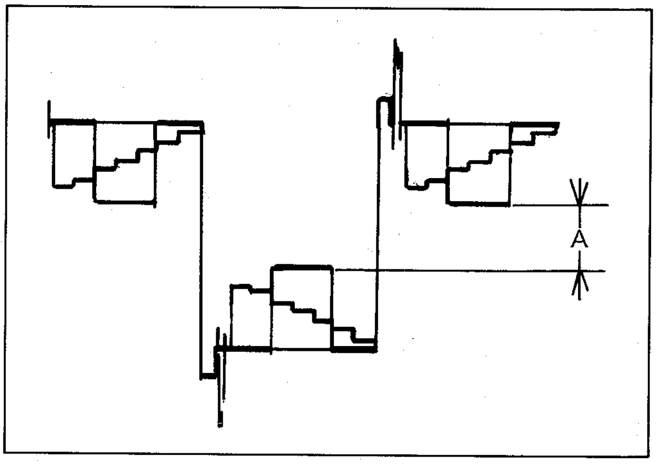


Fig. E19

(1) Turn the Colour control VR on the LCD Monitor unit so that the colour component of Colour Bar signal is closed.
(2) Set the brightness VR on the LCD Monitor unit to the center position.
(3) Adjust the VR0104 so that A level becomes 2.0+–0.1V.

2-5-38. PLL LOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP18	VR0401	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	A:B=50:50	

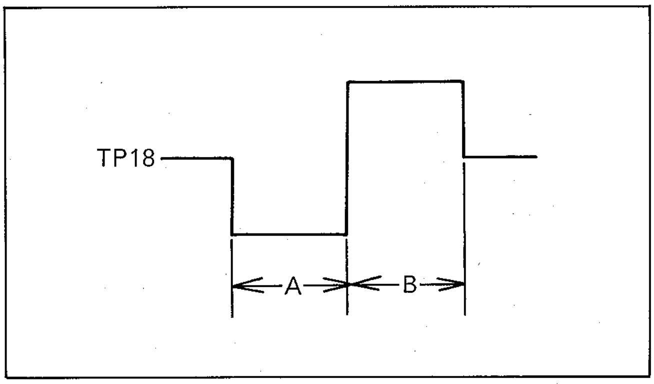


Fig. E20

2-5-39. CONTROLLER CLOCK FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP19	VR0402	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	A,B=MAXIMUM	

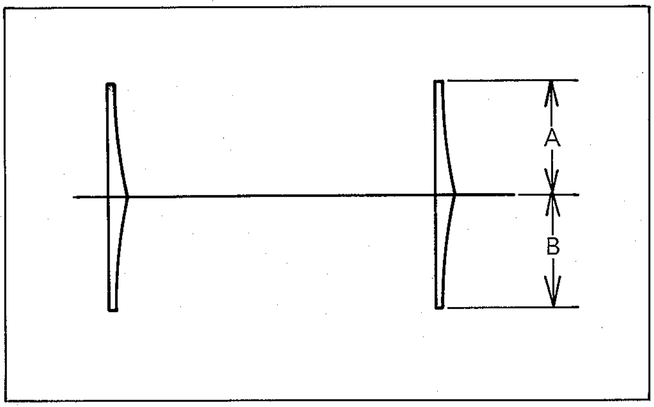


Fig. E21

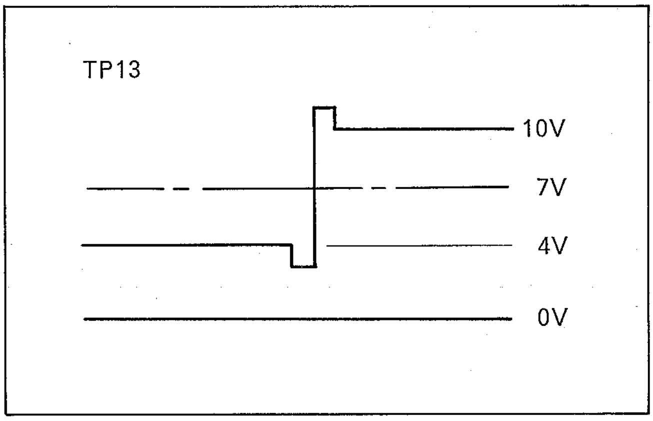
(1) Adjustment VR0402 so that A and B signals which are maximized just appear at both side.

2-5-40. FLICKER ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR	VR0106	MONITOR	
TAPE	**M. EQ.**	**SPEC.**	
	MONITOR	MINIMUM	

(NOTE)
Perform this adjustment when changing the LCD monitor unit.

(1) Connect the oscilloscope to TP13.
(2) Adjust the Brightness VR on the LCD Monitor unit so that the signal at TP13 becomes below.



(3) Connect the jumper wire between P0002-9 and P0002-8(GND).
(4) Adjust VR0106 so that the center flicker of picture on the LCD Monitor unit is minimized.
(5) Remove the jumper wire between P0002-9 and P0002-8(GND).

2-5-41. WHITE BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR	VR0602 (B) VR0603 (R)	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	MONITOR	WHITE	

(1) Set the Bright VR(VR0601) at the center position.
(2) Adjust the VR0602(B) and VR0603(R) so that the pictur colour on Monitor becomes White at the white portion of the Colour Bar signal.

2–5–42. COLOUR SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR	VR0105	MONITOR	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
	MONITOR	MINIMUM	

(1) Set the Bright VR(VR0105) at the center position.
(2) Adjust the VR0105 so that the flicker on the monitor is minimized.

2–5–43. NTSC DISPLAY ADJUSTMENT

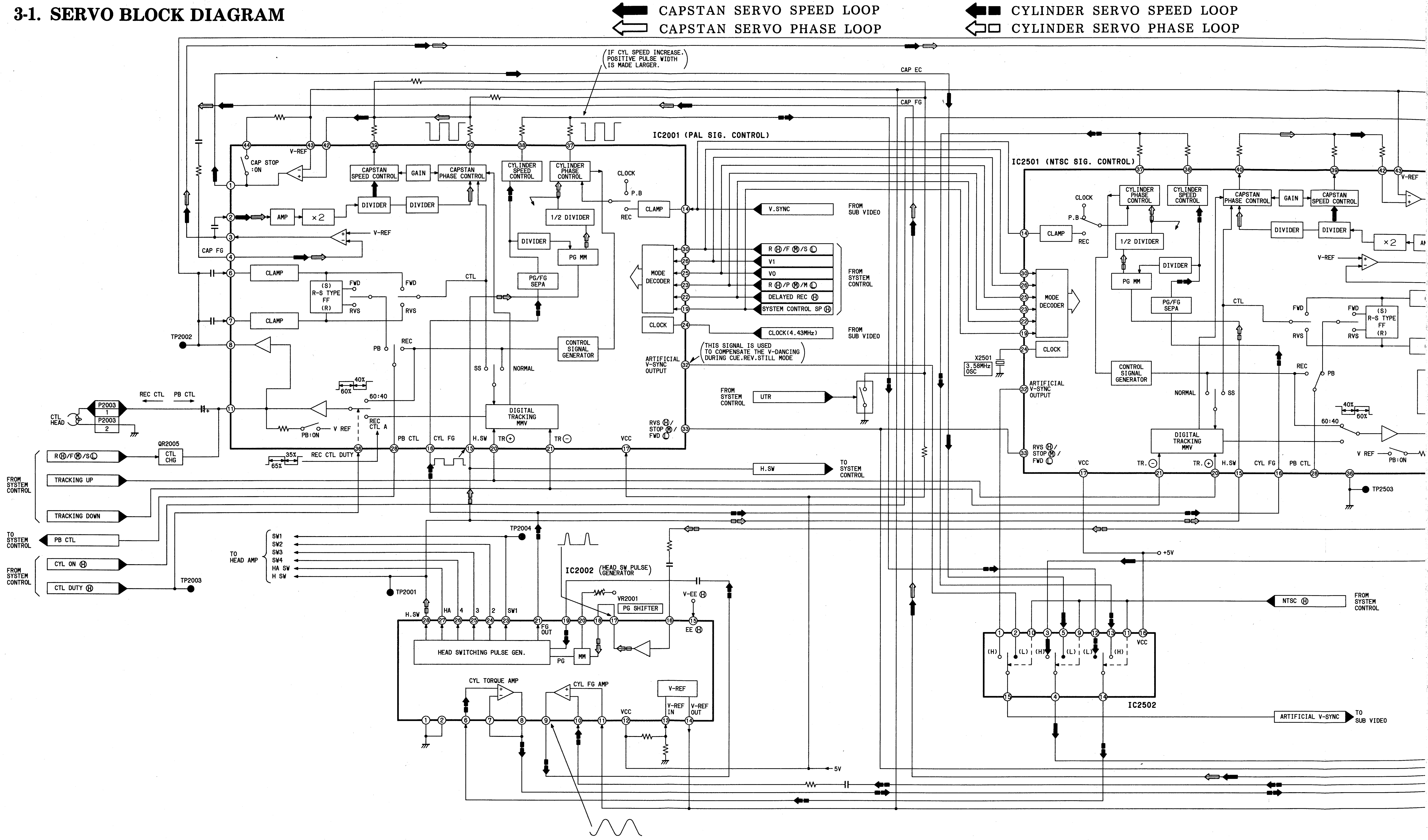
TP	ADJ.	MODE	INPUT
MONITOR	VR0403	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
NTSC TAPE	MONITOR	CENTER POSITION	

(1) PB SELECT SW : NTSC MODE
(2) Set the Brightness VR, Sharpness VR and Colour VR at the center position.
(3) Adjust the VR0403 so that the picture position place at the center on the Monitor.

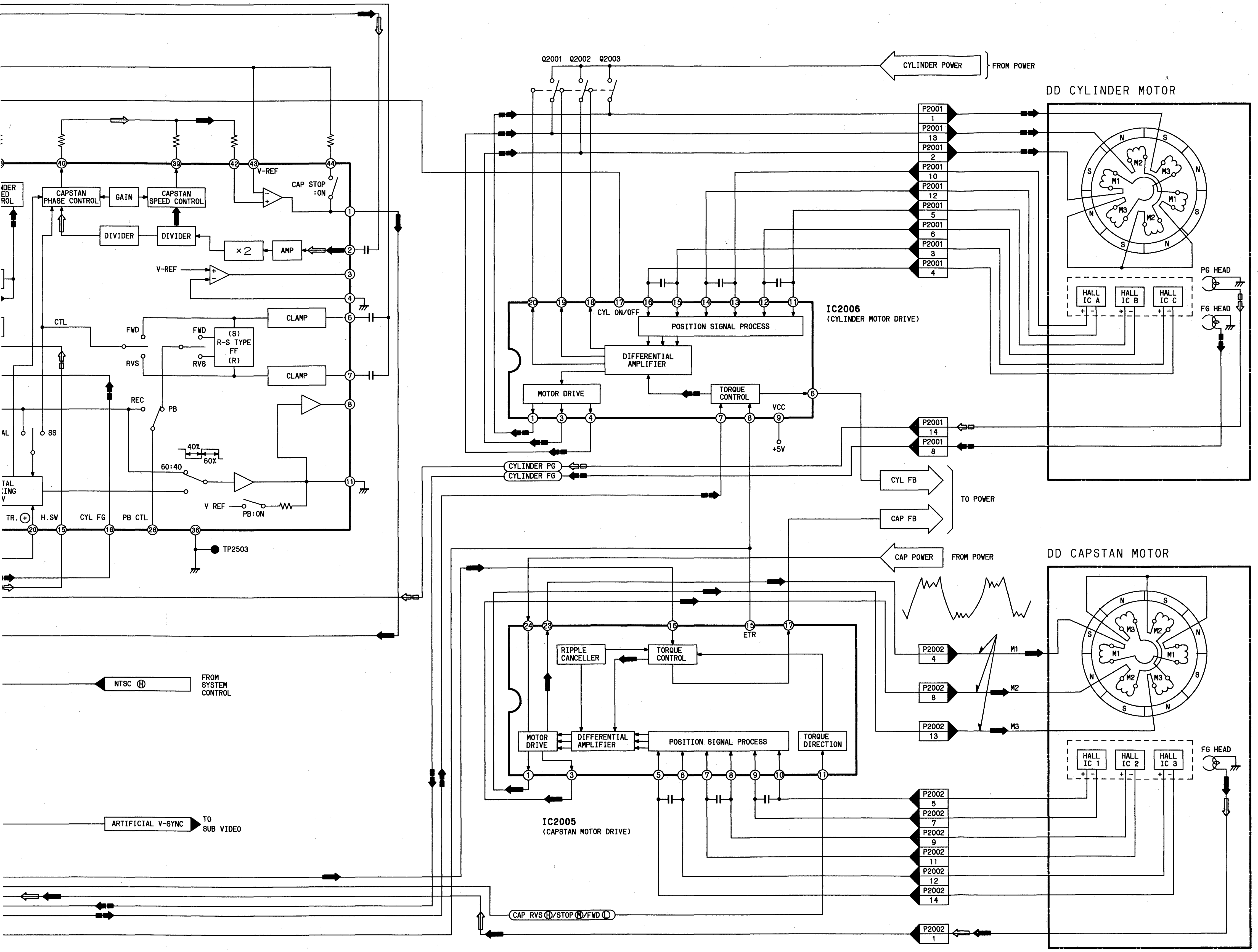
Memo

SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. SERVO BLOCK DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
IF CYL SPEED INCREASE. POSITIVE PULSE WIDTH IS MADE LARGER.
CAP EC
CAP FG
IC2001 (PAL SIG. CONTROL)
V-REF
CAP STOP :ON
CAPSTAN SPEED CONTROL
GAIN
CAPSTAN PHASE CONTROL
CYLINDER SPEED CONTROL
CYLINDER PHASE CONTROL
CLOCK
P.B
REC
CLAMP
AMP
×2
DIVIDER
1/2 DIVIDER
PG MM
PG/FG SEPA
CAP FG
CLAMP
(S) R-S TYPE FF (R)
FWD
RVS
CTL
PB
REC
CONTROL SIGNAL GENERATOR
SS
NORMAL
DIGITAL TRACKING MMV
40%
60%
60:40
REC CTL A
V REF
PB:ON
TP2002
REC CTL
PB CTL
CTL HEAD
P2003
1
2
QR2005
CTL CHG
35%
65%
REC CTL DUTY
PB CTL
CYL FG
H.SW
TR ⊕
TR ⊖
VCC
MODE DECODER
V.SYNC
FROM SUB VIDEO
R Ⓗ/F Ⓜ/S Ⓛ
V1
VO
R Ⓗ/P Ⓜ/M Ⓛ
DELAYED REC Ⓗ
SYSTEM CONTROL SP Ⓗ
FROM SYSTEM CONTROL
CLOCK(4.43MHz)
FROM SUB VIDEO
ARTIFICIAL V-SYNC OUTPUT
THIS SIGNAL IS USED TO COMPENSATE THE V-DANCING DURING CUE.REV.STILL MODE
FROM SYSTEM CONTROL
UTR
RVS Ⓗ/ STOP Ⓜ/ FWD Ⓛ
H.SW
TO SYSTEM CONTROL
FROM SYSTEM CONTROL
R Ⓗ/F Ⓜ/S Ⓛ
TRACKING UP
TRACKING DOWN
TO SYSTEM CONTROL
PB CTL
FROM SYSTEM CONTROL
CYL ON Ⓗ
CTL DUTY Ⓗ
TP2003
TO HEAD AMP
SW1
SW2
SW3
SW4
HA SW
H SW
TP2004
TP2001
IC2002 (HEAD SW PULSE GENERATOR)
VR2001
PG SHIFTER
V-EE Ⓗ
EE Ⓗ
H.SW
HA
4
3
2
SW1
FG OUT
HEAD SWITCHING PULSE GEN.
PG
MM
CYL TORQUE AMP
CYL FG AMP
V-REF
VCC
V-REF IN
V-REF OUT
-5V
IC2501 (NTSC SIG. CONTROL)
CYLINDER PHASE CONTROL
CYLINDER SPEED CONTROL
CAPSTAN PHASE CONTROL
GAIN
CAPSTAN SPEED CONTROL
V-REF
CLOCK
P.B
REC
CLAMP
1/2 DIVIDER
DIVIDER
×2
MODE DECODER
PG MM
PG/FG SEPA
CTL
FWD
RVS
(S) R-S TYPE FF (R)
X2501 3.58MHz OSC
CLOCK
ARTIFICIAL V-SYNC OUTPUT
CONTROL SIGNAL GENERATOR
NORMAL
SS
REC
PB
40%
60%
60:40
V REF
PB:ON
DIGITAL TRACKING MMV
RVS Ⓗ/ STOP Ⓜ/ FWD Ⓛ
VCC
TR. ⊖
TR. ⊕
H.SW
CYL FG
PB CTL
TP2503
+5V
NTSC Ⓗ
FROM SYSTEM CONTROL
(H)
(L)
VCC
IC2502
ARTIFICIAL V-SYNC
TO SUB VIDEO

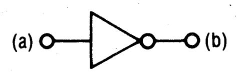
LOOP
LOOP



CAPSTAN PHASE CONTROL
GAIN
CAPSTAN SPEED CONTROL
DIVIDER
DIVIDER
×2
AMP
V-REF
CAP STOP :ON
CLAMP
CLAMP
CTL
FWD
RVS
(S) R-S TYPE FF (R)
REC
PB
SS
40%
60%
60:40
V REF
PB:ON
H.SW
CYL FG
PB CTL
TP2503
NTSC Ⓗ
FROM SYSTEM CONTROL
ARTIFICIAL V-SYNC
TO SUB VIDEO
Q2001 Q2002 Q2003
CYLINDER POWER
FROM POWER
DD CYLINDER MOTOR
P2001
CYL ON/OFF
POSITION SIGNAL PROCESS
DIFFERENTIAL AMPLIFIER
MOTOR DRIVE
TORQUE CONTROL
VCC
+5V
IC2006 (CYLINDER MOTOR DRIVE)
HALL IC A
HALL IC B
HALL IC C
PG HEAD
FG HEAD
CYLINDER PG
CYLINDER FG
CYL FB
CAP FB
TO POWER
CAP POWER
FROM POWER
DD CAPSTAN MOTOR
ETR
RIPPLE CANCELLER
TORQUE CONTROL
MOTOR DRIVE
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2005 (CAPSTAN MOTOR DRIVE)
P2002
M1
M2
M3
HALL IC 1
HALL IC 2
HALL IC 3
FG HEAD
CAP RVS Ⓗ/STOP Ⓜ/FWD Ⓛ

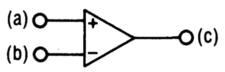
SYMBOL	TRUTH VALUE TABLE

INVERTER



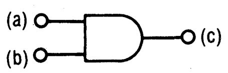
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



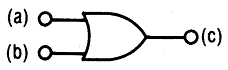
IN	(a) (b)	(a)>(b)	(a)<(b)
OUT	(c)	H	L

AND CIRCUIT



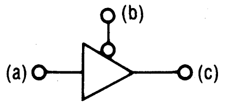
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

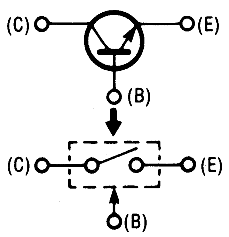
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

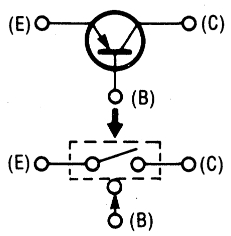
※ High Impedance

TR. SW (NPN TYPE)



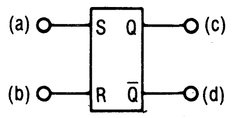
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

R-S TYPE FLIP-FLOP



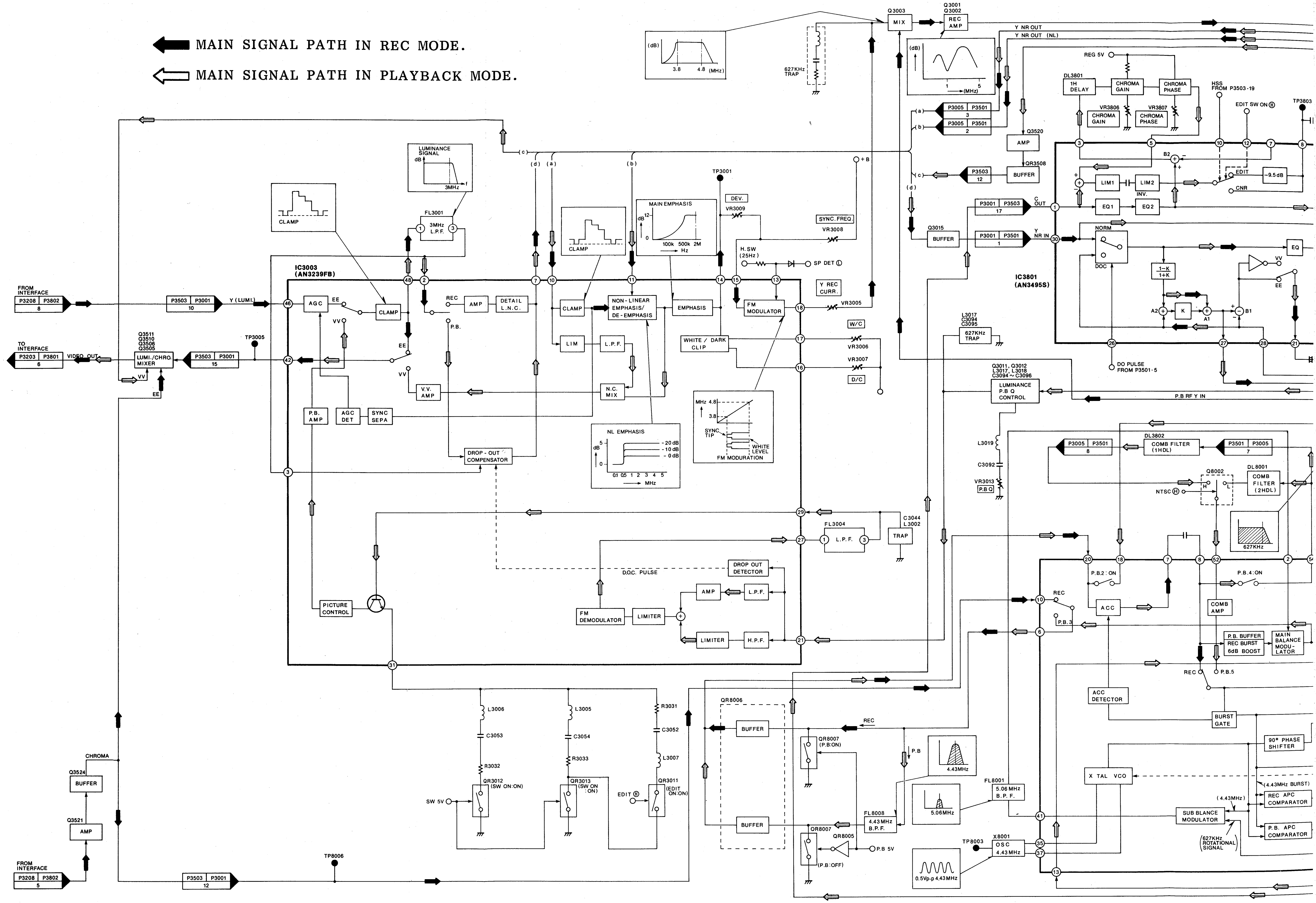
IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reverced.

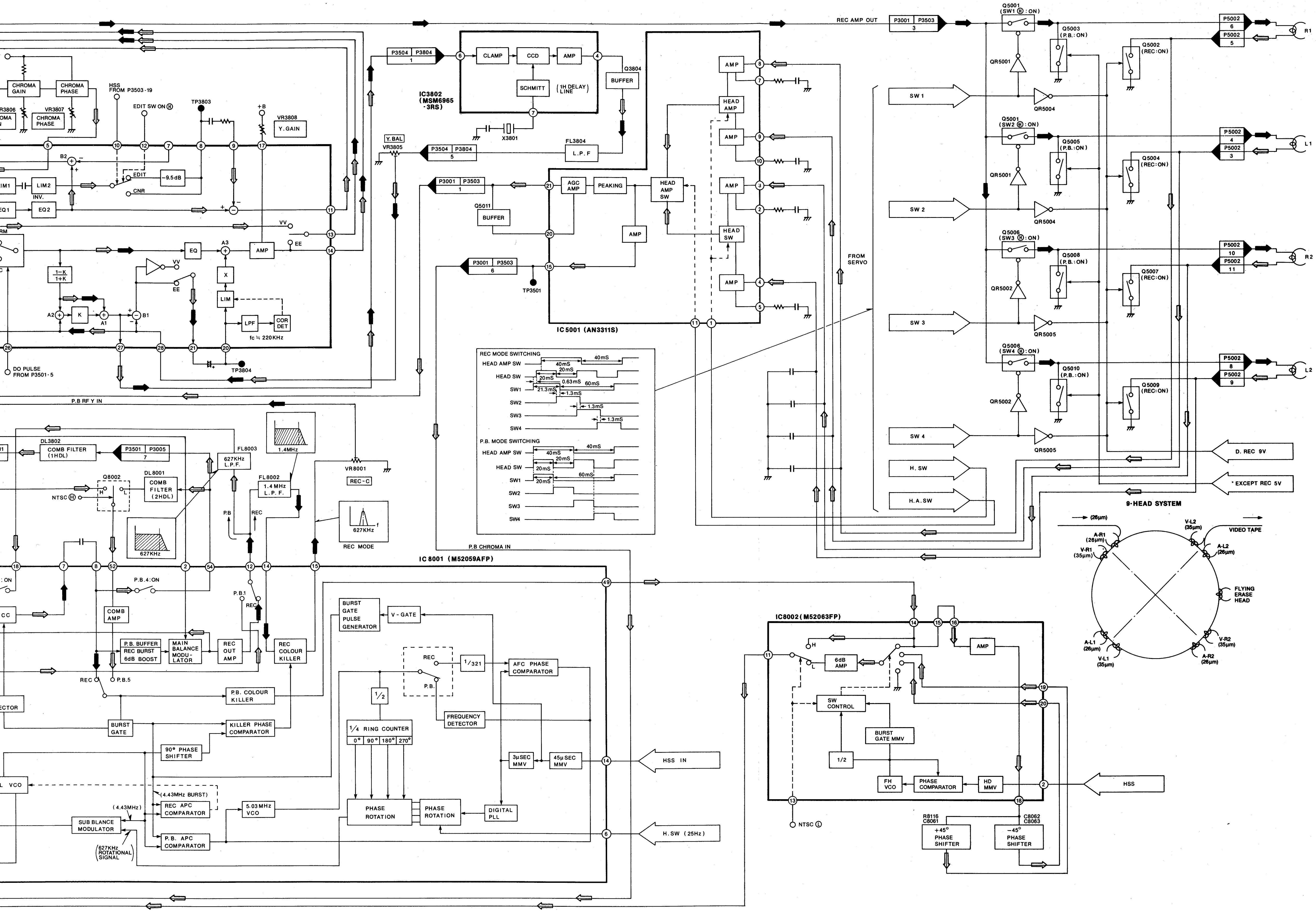
3-2. LUMINANCE & CHROMINANCE BLOCK DIAGRAM

MAIN SIGNAL PATH IN REC MODE.

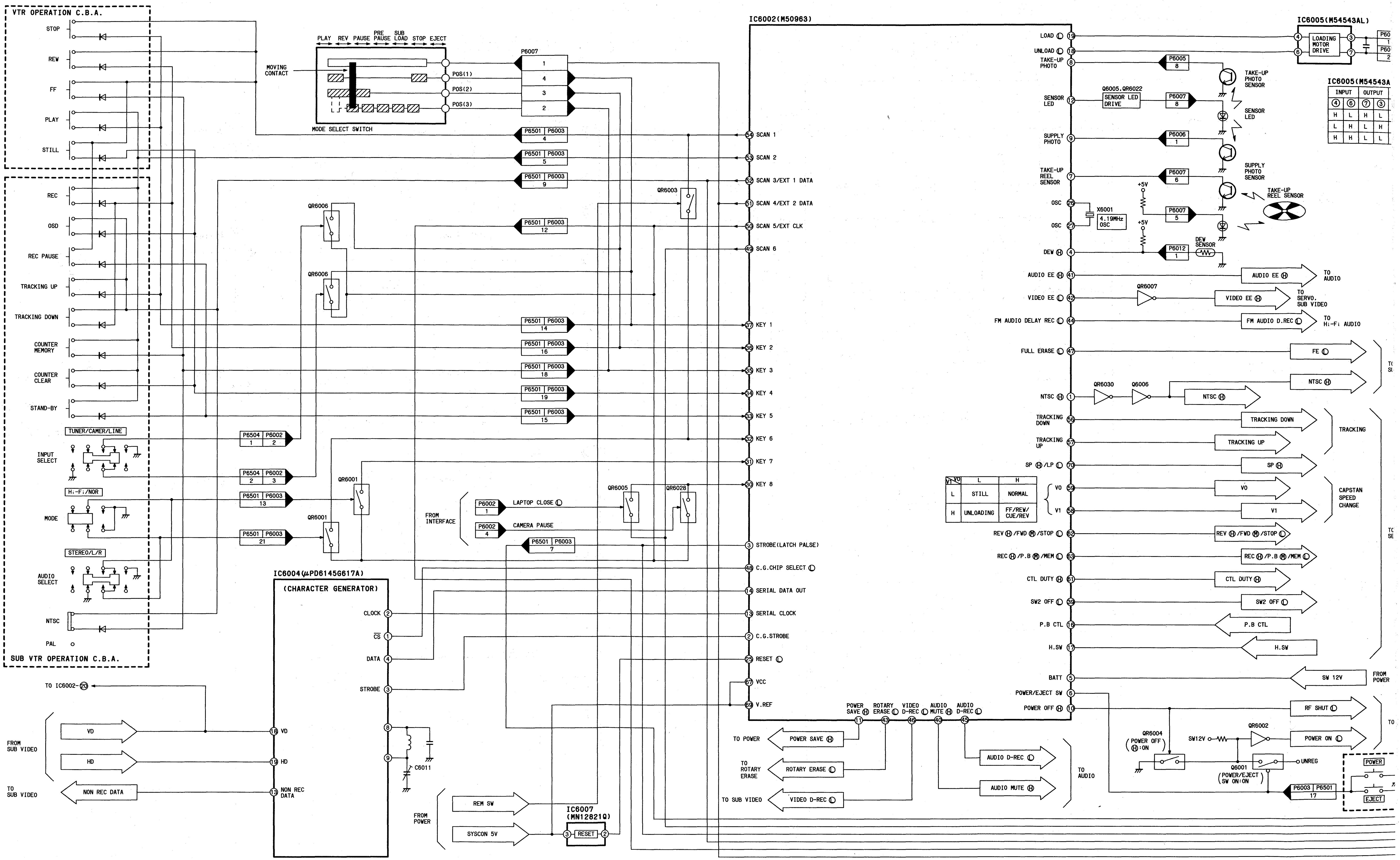
MAIN SIGNAL PATH IN PLAYBACK MODE.

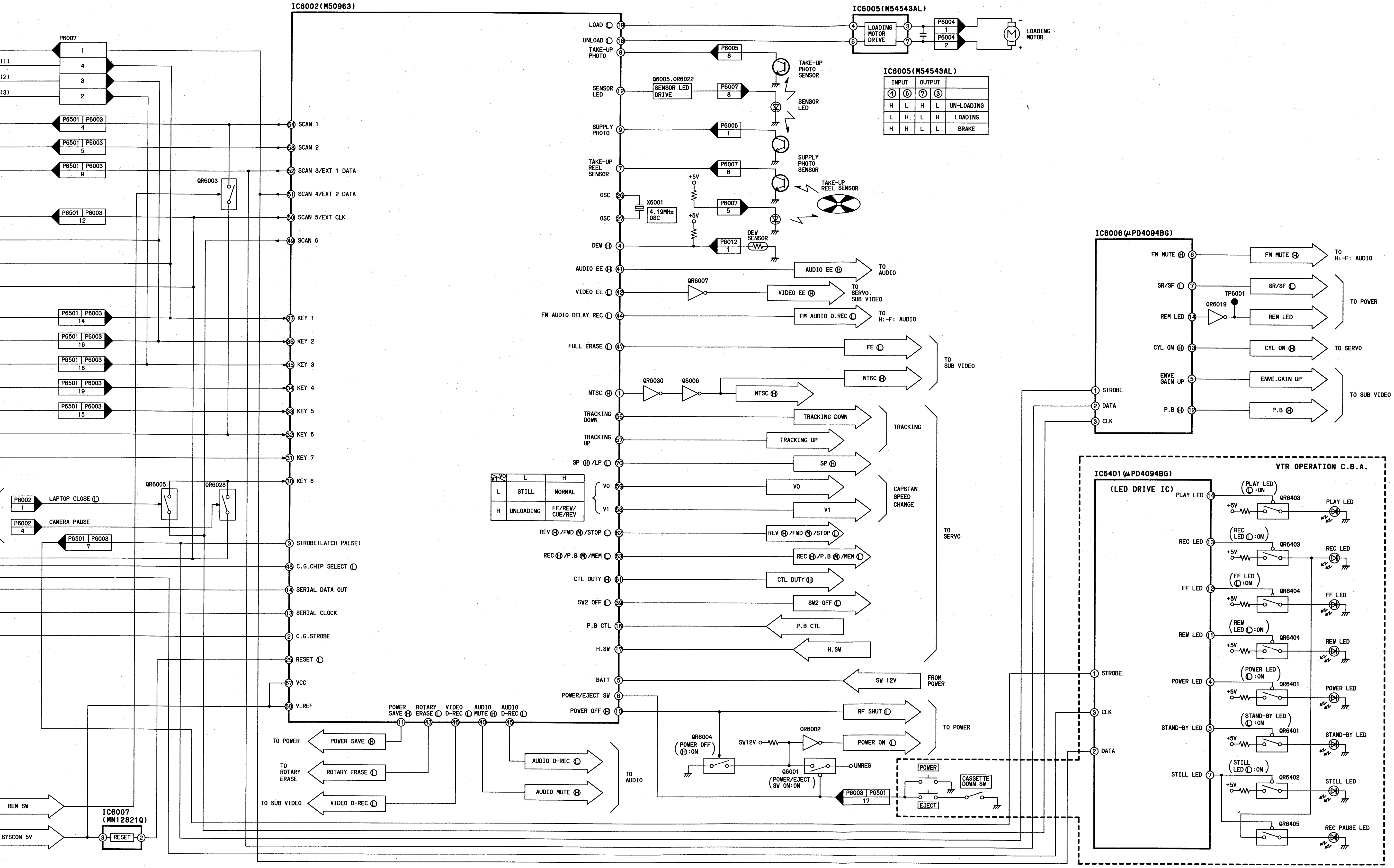

Q3003
MIX
Q3001
Q3002
REC AMP
Y NR OUT
Y NR OUT (NL)
(dB)
3.8
4.8
(MHz)
627KHz TRAP
1
5
(MHz)
REG 5V
DL3801
1H DELAY
CHROMA GAIN
CHROMA PHASE
HSS FROM P3503-19
EDIT SW ON Ⓗ
TP3803
VR3806
CHROMA GAIN
VR3807
CHROMA PHASE
P3005
P3501
3
2
Q3520
AMP
QR3508
BUFFER
P3503
12
B2
EDIT
-9.5dB
CNR
LIM1
LIM2
INV.
C OUT
P3001
P3503
17
EQ1
EQ2
Q3015
BUFFER
Y NR IN
1
NORM
DOC
EQ
IC3801
(AN3495S)
1-K
1+K
K
A1
A2
B1
EE
VV
DO PULSE FROM P3501-5
LUMINANCE SIGNAL
dB
3MHz
f
FL3001
3MHz L.P.F.
CLAMP
+B
TP3001
MAIN EMPHASIS
dB
100k
500k
2M
Hz
DEV.
VR3009
SYNC. FREQ.
VR3008
H. SW (25Hz)
SP DET Ⓛ
Y REC CURR.
VR3005
W/C
VR3006
VR3007
D/C
IC3003
(AN3239FB)
FROM INTERFACE
P3208
P3802
8
P3503
P3001
10
Y (LUMI.)
AGC
EE
VV
CLAMP
REC
P.B.
AMP
DETAIL L.N.C.
CLAMP
NON-LINEAR EMPHASIS/ DE-EMPHASIS
EMPHASIS
FM MODULATOR
WHITE / DARK CLIP
LIM
L.P.F.
N.C. MIX
V.V. AMP
TO INTERFACE
P3203
P3801
6
VIDEO OUT
Q3511
Q3510
Q3506
Q3505
LUMI./CHRO. MIXER
P3503
P3001
15
TP3005
P.B. AMP
AGC DET
SYNC SEPA
NL EMPHASIS
-20dB
-10dB
-0dB
01
05
1
2
3
4
5
MHz
MHz 4.8
3.8
SYNC TIP
WHITE LEVEL
FM MODURATION
DROP-OUT COMPENSATOR
L3017
C3094
C3095
627KHz TRAP
Q3011, Q3012
L3017, L3018
C3094 ~ C3096
LUMINANCE P.B Q CONTROL
P.B RF Y IN
L3019
C3092
VR3013
P.B Q
P3005
P3501
8
DL3802
COMB FILTER (1HDL)
P3501
P3005
7
Q8002
DL8001
COMB FILTER (2HDL)
NTSC Ⓗ
627KHz
C3044
L3002
FL3004
L.P.F.
TRAP
DROP OUT DETECTOR
D.O.C. PULSE
AMP
L.P.F.
FM DEMODULATOR
LIMITER
LIMITER
H.P.F.
PICTURE CONTROL
P.B.2:ON
P.B.4:ON
REC
P.B.3
ACC
COMB AMP
P.B. BUFFER
REC BURST
6dB BOOST
MAIN BALANCE MODULATOR
REC
P.B.5
ACC DETECTOR
BURST GATE
90° PHASE SHIFTER
X TAL VCO
(4.43MHz BURST)
REC APC COMPARATOR
(4.43MHz)
SUB BLANCE MODULATOR
P.B. APC COMPARATOR
(627KHz ROTATIONAL SIGNAL)
L3006
C3053
R3032
QR3012
(SW ON:ON)
SW 5V
L3005
C3054
R3033
QR3013
(SW ON :ON)
R3031
C3052
L3007
QR3011
(EDIT ON:ON)
EDIT Ⓗ
QR8006
BUFFER
BUFFER
QR8007
(P.B:ON)
QR8007
QR8005
(P.B:OFF)
P.B 5V
P.B
4.43MHz
5.06MHz
FL8001
5.06MHz B.P.F.
FL8008
4.43MHz B.P.F.
TP8003
X8001
OSC 4.43MHz
0.5Vp-p 4.43MHz
CHROMA
Q3524
BUFFER
Q3521
AMP
FROM INTERFACE
P3208
P3802
5
P3503
P3001
12
TP8006

**Back Page:
SERVO Section**


REC AMP OUT
P3001 P3503 3
Q5001 (SW1 Ⓗ:ON)
Q5003 (P.B.:ON)
Q5002 (REC:ON)
P5002 6
P5002 5
R1
QR5001
SW 1
QR5004
Q5001 (SW2 Ⓗ:ON)
Q5005 (P.B.:ON)
Q5004 (REC:ON)
P5002 4
P5002 3
L1
SW 2
Q5006 (SW3 Ⓗ:ON)
Q5008 (P.B.:ON)
Q5007 (REC:ON)
P5002 10
P5002 11
R2
QR5002
SW 3
QR5005
Q5006 (SW4 Ⓗ:ON)
Q5010 (P.B.:ON)
Q5009 (REC:ON)
P5002 8
P5002 9
L2
SW 4
H. SW
H.A.SW
D. REC 9V
EXCEPT REC 5V
FROM SERVO
9-HEAD SYSTEM
(26μm)
VIDEO TAPE
A-R1 (26μm)
V-R1 (35μm)
V-L2 (35μm)
A-L2 (26μm)
FLYING ERASE HEAD
A-L1 (26μm)
V-L1 (35μm)
V-R2 (35μm)
A-R2 (26μm)
P3504 P3804 1
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
IC3802 (MSM6965-3RS)
X3801
Q3804
BUFFER
FL3804
L.P.F
Y. BAL
VR3805
P3504 P3804 5
P3001 P3503 1
AGC AMP
PEAKING
HEAD AMP SW
Q5011
BUFFER
AMP
HEAD AMP
HEAD SW
P3001 P3503 6
TP3501
IC5001 (AN3311S)
REC MODE SWITCHING
HEAD AMP SW
HEAD SW
SW1
SW2
SW3
SW4
40mS
20mS
0.63mS
60mS
21.3mS
1.3mS
P.B. MODE SWITCHING
CHROMA GAIN
CHROMA PHASE
VR3806
VR3807
HSS FROM P3503-19
EDIT SW ON Ⓗ
TP3803
+B
VR3808
Y. GAIN
B2
EDIT
-9.5dB
LIM1
LIM2
INV.
CNR
EQ1
EQ2
VV
EE
EQ
A3
AMP
1-K/1+K
K
A2
A1
B1
X
LIM
LPF
COR DET
fc ≒ 220KHz
DO PULSE FROM P3501-5
TP3804
P.B RF Y IN
DL3802
COMB FILTER (1HDL)
P3501 P3005 7
FL8003
627KHz L.P.F.
1.4MHz
Q8002
DL8001
COMB FILTER (2HDL)
NTSC Ⓗ
FL8002
1.4MHz L.P.F.
VR8001
REC-C
627KHz
627KHz
REC MODE
P.B
REC
P.B CHROMA IN
IC8001 (M52059AFP)
P.B.4:ON
COMB AMP
P.B.1
P.B. BUFFER
REC BURST
6dB BOOST
MAIN BALANCE MODULATOR
REC OUT AMP
REC COLOUR KILLER
REC
P.B.5
P.B. COLOUR KILLER
BURST GATE
KILLER PHASE COMPARATOR
90° PHASE SHIFTER
VCO
(4.43MHz BURST)
REC APC COMPARATOR
(4.43MHz)
SUB BLANCE MODULATOR
(627KHz ROTATIONAL SIGNAL)
P.B. APC COMPARATOR
5.03MHz VCO
BURST GATE PULSE GENERATOR
V-GATE
1/321
AFC PHASE COMPARATOR
1/2
P.B.
FREQUENCY DETECTOR
1/4 RING COUNTER
0° 90° 180° 270°
3μSEC MMV
45μSEC MMV
PHASE ROTATION
PHASE ROTATION
DIGITAL PLL
HSS IN
H.SW (25Hz)
IC8002 (M52063FP)
H
L
6dB AMP
AMP
SW CONTROL
BURST GATE MMV
1/2
FH VCO
PHASE COMPARATOR
HD MMV
HSS
NTSC Ⓛ
R8116 C8061
+45° PHASE SHIFTER
C8062 C8063
-45° PHASE SHIFTER

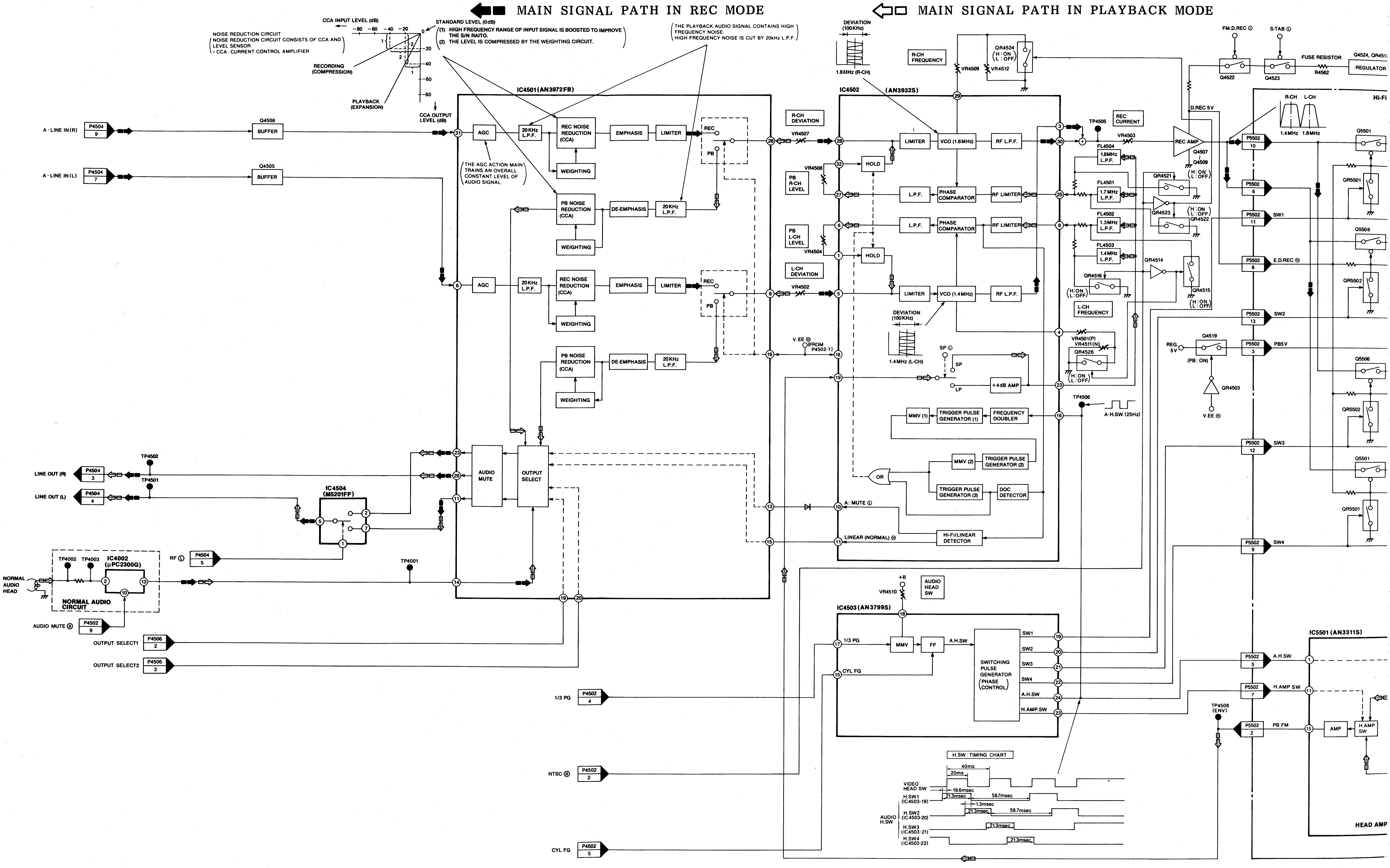
3-3. SYSTEM CONTROL BLOCK DIAGRAM


VTR OPERATION C.B.A.
STOP
REW
FF
PLAY
STILL
REC
OSD
REC PAUSE
TRACKING UP
TRACKING DOWN
COUNTER MEMORY
COUNTER CLEAR
STAND-BY
TUNER/CAMER/LINE
INPUT SELECT
Hi-Fi/NOR
MODE
STEREO/L/R
AUDIO SELECT
NTSC
PAL
SUB VTR OPERATION C.B.A.
PLAY REV PAUSE PRE PAUSE SUB LOAD STOP EJECT
MOVING CONTACT
POS(1)
POS(2)
POS(3)
MODE SELECT SWITCH
P6007
P6501 P6003
P6504 P6002
QR6006
QR6003
QR6001
QR6005
QR6028
FROM INTERFACE
P6002
LAPTOP CLOSE Ⓛ
CAMERA PAUSE
IC6004(μPD6145G617A)
(CHARACTER GENERATOR)
CLOCK
CS
DATA
STROBE
VD
HD
NON REC DATA
C6011
TO IC6002-⑳
FROM SUB VIDEO
TO SUB VIDEO
FROM POWER
REM SW
SYSCON 5V
IC6007 (MN12821Q)
RESET
IC6002(M50963)
SCAN 1
SCAN 2
SCAN 3/EXT 1 DATA
SCAN 4/EXT 2 DATA
SCAN 5/EXT CLK
SCAN 6
KEY 1
KEY 2
KEY 3
KEY 4
KEY 5
KEY 6
KEY 7
KEY 8
STROBE(LATCH PALSE)
C.G.CHIP SELECT Ⓛ
SERIAL DATA OUT
SERIAL CLOCK
C.G.STROBE
RESET Ⓛ
VCC
V.REF
POWER SAVE Ⓗ
ROTARY ERASE Ⓛ
VIDEO D-REC Ⓛ
AUDIO MUTE Ⓗ
AUDIO D-REC Ⓛ
TO POWER
TO ROTARY ERASE
TO SUB VIDEO
TO AUDIO
LOAD Ⓛ
UNLOAD Ⓛ
TAKE-UP PHOTO
SENSOR LED
SUPPLY PHOTO
TAKE-UP REEL SENSOR
OSC
X6001 4.19MHz OSC
DEW Ⓗ
DEW SENSOR
Q6005,QR6022 SENSOR LED DRIVE
P6005
P6006
P6012
+5V
TAKE-UP PHOTO SENSOR
SENSOR LED
SUPPLY PHOTO SENSOR
TAKE-UP REEL SENSOR
IC6005(M54543AL)
LOADING MOTOR DRIVE
IC6005(M54543A
INPUT OUTPUT
④ ⑥ ⑦ ③
H L H L
L H L H
H H L L
AUDIO EE Ⓗ
TO AUDIO
VIDEO EE Ⓛ
QR6007
TO SERVO, SUB VIDEO
FM AUDIO DELAY REC Ⓛ
FM AUDIO D.REC Ⓛ
TO Hi-Fi AUDIO
FULL ERASE Ⓛ
FE Ⓛ
NTSC Ⓗ
QR6030
Q6006
TRACKING DOWN
TRACKING UP
TRACKING
SP Ⓗ/LP Ⓛ
V0 V1 L H
L STILL NORMAL
H UNLOADING FF/REW/CUE/REV
V0
V1
CAPSTAN SPEED CHANGE
REV Ⓗ/FWD Ⓜ/STOP Ⓛ
REC Ⓗ/P.B Ⓜ/MEM Ⓛ
CTL DUTY Ⓗ
SW2 OFF Ⓛ
P.B CTL
H.SW
BATT
SW 12V
FROM POWER
POWER/EJECT SW
POWER OFF Ⓗ
RF SHUT Ⓛ
QR6004 (POWER OFF Ⓗ:ON)
SW12V
QR6002
POWER ON Ⓛ
UNREG
Q6001 (POWER/EJECT SW ON:ON)
POWER
EJECT


IC6002(M50963)
IC6005(M54543AL)
LOADING MOTOR DRIVE
LOADING MOTOR
P6004
P6005
P6006
P6007
P6012
P6501
P6003
P6002
TAKE-UP PHOTO SENSOR
SENSOR LED
SUPPLY PHOTO SENSOR
TAKE-UP REEL SENSOR
DEW SENSOR
Q6005.QR6022 SENSOR LED DRIVE
X6001 4.19MHz OSC
LOAD
UNLOAD
TAKE-UP PHOTO
SENSOR LED
SUPPLY PHOTO
TAKE-UP REEL SENSOR
OSC
DEW
AUDIO EE
VIDEO EE
FM AUDIO DELAY REC
FULL ERASE
NTSC
TRACKING DOWN
TRACKING UP
SP/LP
VO
V1
REV/FWD/STOP
REC/P.B/MEM
CTL DUTY
SW2 OFF
P.B CTL
H.SW
BATT
POWER/EJECT SW
POWER OFF
SCAN 1
SCAN 2
SCAN 3/EXT 1 DATA
SCAN 4/EXT 2 DATA
SCAN 5/EXT CLK
SCAN 6
KEY 1
KEY 2
KEY 3
KEY 4
KEY 5
KEY 6
KEY 7
KEY 8
STROBE(LATCH PALSE)
C.G.CHIP SELECT
SERIAL DATA OUT
SERIAL CLOCK
C.G.STROBE
RESET
VCC
V.REF
POWER SAVE
ROTARY ERASE
VIDEO D-REC
AUDIO MUTE
AUDIO D-REC
QR6003
QR6005
QR6028
QR6007
QR6030
Q6006
QR6002
QR6004 (POWER OFF H:ON)
Q6001 (POWER/EJECT SW ON:ON)
SW12V
UNREG
LAPTOP CLOSE
CAMERA PAUSE
REM SW
SYSCON 5V
IC6007 (MN12821Q)
RESET
TO AUDIO
TO SERVO, SUB VIDEO
TO Hi-Fi AUDIO
FE
TO SUB VIDEO
TRACKING
CAPSTAN SPEED CHANGE
TO SERVO
FROM POWER
SW 12V
RF SHUT
POWER ON
TO POWER
TO ROTARY ERASE
POWER
CASSETTE DOWN SW
EJECT
IC6005(M54543AL)
INPUT | OUTPUT
④ ⑥ ⑦ ③
H L H L UN-LOADING
L H L H LOADING
H H L L BRAKE
V1\V0 | L | H
L | STILL | NORMAL
H | UNLOADING | FF/REW/CUE/REV
IC6006(μPD4094BG)
FM MUTE
SR/SF
REM LED
CYL ON
ENVE GAIN UP
P.B
STROBE
DATA
CLK
TP6001
QR6019
TO POWER
TO SERVO
TO SUB VIDEO
VTR OPERATION C.B.A.
IC6401(μPD4094BG)
(LED DRIVE IC)
PLAY LED
REC LED
FF LED
REW LED
POWER LED
STAND-BY LED
STILL LED
REC PAUSE LED
QR6401
QR6402
QR6403
QR6404
QR6405
+5V

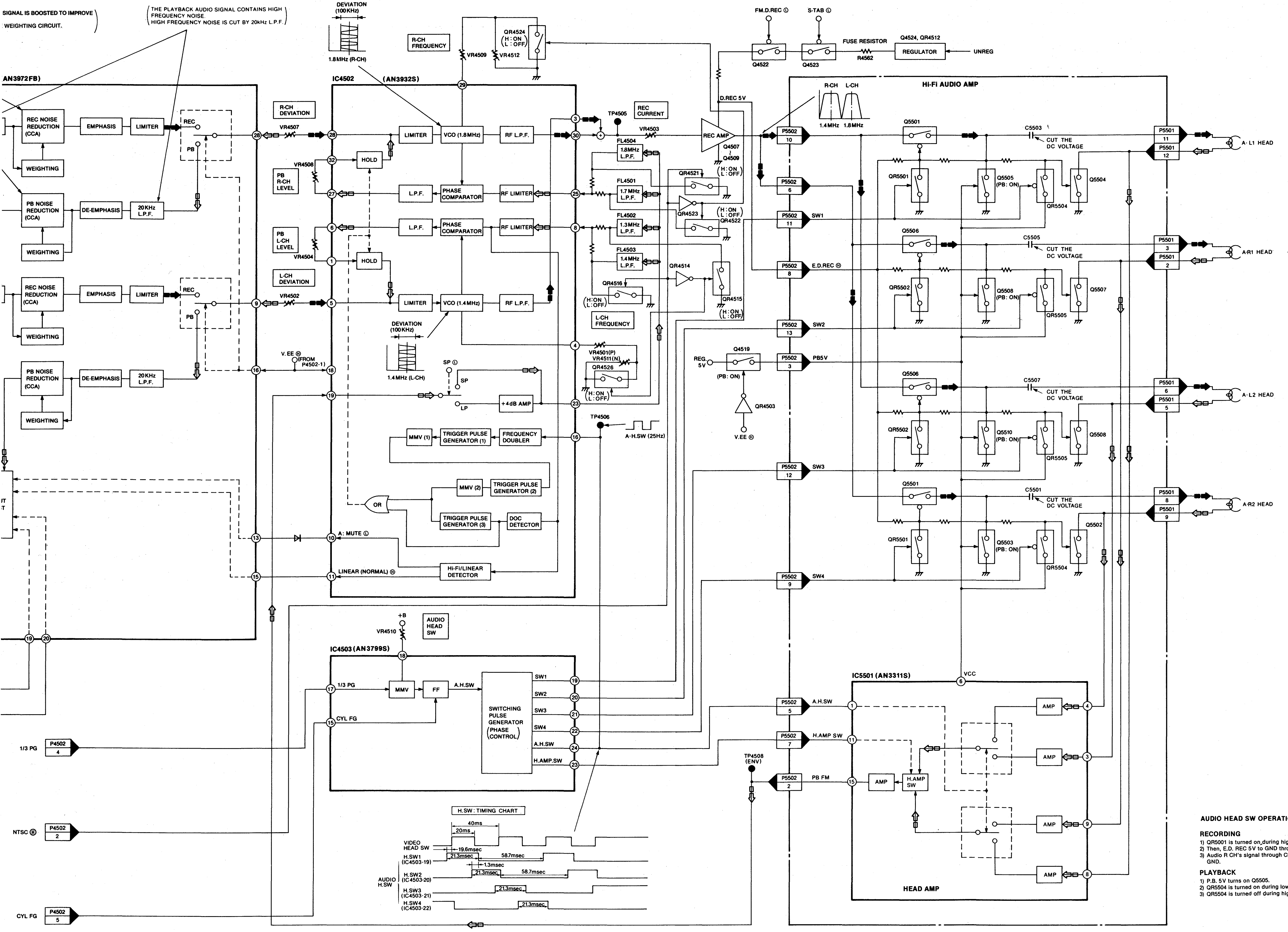
Next Page:
Hi-Fi/NORMAL AUDIO Section

3-4. Hi-Fi/NORMAL AUDIO BLOCK DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
CCA INPUT LEVEL (dB)
-80 -60 -40 -20
STANDARD LEVEL (0dB)
(1) HIGH FREQUENCY RANGE OF INPUT SIGNAL IS BOOSTED TO IMPROVE THE S/N RAITO.
(2) THE LEVEL IS COMPRESSED BY THE WEIGHTING CIRCUIT.
THE PLAYBACK AUDIO SIGNAL CONTAINS HIGH FREQUENCY NOISE. HIGH FREQUENCY NOISE IS CUT BY 20kHz L.P.F.
NOISE REDUCTION CIRCUIT
NOISE REDUCTION CIRCUIT CONSISTS OF CCA AND LEVEL SENSOR.
CCA: CURRENT CONTROL AMPLIFIER
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL (dB)
IC4501 (AN3972FB)
A·LINE IN (R)
A·LINE IN (L)
P4504
Q4506 BUFFER
Q4505 BUFFER
AGC
20KHz L.P.F.
REC NOISE REDUCTION (CCA)
EMPHASIS
LIMITER
WEIGHTING
PB NOISE REDUCTION (CCA)
DE-EMPHASIS
REC
PB
THE AGC ACTION MAIN TRAINS AN OVERALL CONSTANT LEVEL OF AUDIO SIGNAL.
AUDIO MUTE
OUTPUT SELECT
LINE OUT (R)
LINE OUT (L)
TP4502
TP4501
IC4504 (M5201FP)
NORMAL AUDIO HEAD
TP4002 TP4003 IC4002 (μPC2300G)
NORMAL AUDIO CIRCUIT
RF Ⓛ
TP4001
AUDIO MUTE Ⓗ
P4502
OUTPUT SELECT1
OUTPUT SELECT2
P4506
1/3 PG
NTSC Ⓗ
CYL FG
DEVIATION (100KHz)
1.8MHz (R-CH)
R-CH FREQUENCY
VR4509 VR4512
QR4524 (H: ON L: OFF)
IC4502 (AN3932S)
R-CH DEVIATION
VR4507
LIMITER
VCO (1.8MHz)
RF L.P.F.
VR4508
HOLD
PB R-CH LEVEL
L.P.F.
PHASE COMPARATOR
RF LIMITER
PB L-CH LEVEL
VR4504
L-CH DEVIATION
VR4502
VCO (1.4MHz)
DEVIATION (100KHz)
1.4MHz (L-CH)
V.EE Ⓗ (FROM P4502-1)
SP Ⓛ
SP
LP
+4dB AMP
MMV (1)
TRIGGER PULSE GENERATOR (1)
FREQUENCY DOUBLER
MMV (2)
TRIGGER PULSE GENERATOR (2)
OR
TRIGGER PULSE GENERATOR (3)
DOC DETECTOR
A: MUTE Ⓛ
LINEAR (NORMAL) Ⓗ
Hi-Fi/LINEAR DETECTOR
TP4505
REC CURRENT
VR4503
FL4504 1.8MHz L.P.F.
FL4501 1.7MHz L.P.F.
FL4502 1.3MHz L.P.F.
FL4503 1.4MHz L.P.F.
QR4521
QR4523
QR4522
QR4514
QR4516
QR4515
(H: ON L: OFF)
L-CH FREQUENCY
VR4501(P) VR4511(N)
QR4526
TP4506
A·H.SW (25Hz)
FM.D.REC Ⓛ
S-TAB Ⓛ
Q4522
Q4523
FUSE RESISTOR R4562
Q4524, QR451
REGULATOR
D.REC 5V
REC AMP
Q4507
Q4509
(H: ON L: OFF)
R-CH L-CH
1.4MHz 1.8MHz
Hi-Fi
P5502
SW1
E.D.REC Ⓗ
SW2
REG. 5V
Q4519
(PB: ON)
PB5V
QR4503
V.EE Ⓗ
SW3
SW4
Q5501
QR5501
Q5506
QR5502
Q5506
QR5502
Q5501
QR5501
+B
VR4510
AUDIO HEAD SW
IC4503 (AN3799S)
1/3 PG
CYL FG
MMV
FF
A.H.SW
SWITCHING PULSE GENERATOR (PHASE CONTROL)
SW1 SW2 SW3 SW4 A.H.SW H.AMP.SW
H.SW: TIMING CHART
40ms
20ms
VIDEO HEAD SW
19.6msec
H.SW1 (IC4503-19)
21.3msec
58.7msec
1.3msec
AUDIO H.SW
H.SW2 (IC4503-20)
H.SW3 (IC4503-21)
H.SW4 (IC4503-22)
IC5501 (AN3311S)
A.HSW
H.AMP SW
TP4508 (ENV)
PB FM
AMP
H.AMP SW
HEAD AMP

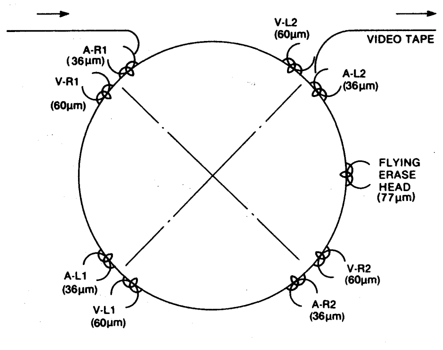
IN SIGNAL PATH IN REC MODE

⇦ MAIN SIGNAL PATH IN PLAYBACK MODE


SIGNAL IS BOOSTED TO IMPROVE
WEIGHTING CIRCUIT.

(THE PLAYBACK AUDIO SIGNAL CONTAINS HIGH FREQUENCY NOISE.
HIGH FREQUENCY NOISE IS CUT BY 20kHz L.P.F.)

AN3972FB)
REC NOISE REDUCTION (CCA)
EMPHASIS
LIMITER
REC
PB
WEIGHTING
PB NOISE REDUCTION (CCA)
DE-EMPHASIS
20KHz L.P.F.
DEVIATION (100KHz)
1.8MHz (R-CH)
R-CH FREQUENCY
QR4524 (H: ON L: OFF)
VR4509
VR4512
IC4502 (AN3932S)
R-CH DEVIATION
VR4507
VR4508
PB R-CH LEVEL
PB L-CH LEVEL
VR4504
L-CH DEVIATION
VR4502
HOLD
LIMITER
VCO (1.8MHz)
RF L.P.F.
L.P.F.
PHASE COMPARATOR
RF LIMITER
VCO (1.4MHz)
DEVIATION (100KHz)
1.4MHz (L-CH)
SP
LP
+4dB AMP
V.EE Ⓡ (FROM P4502-1)
MMV (1)
TRIGGER PULSE GENERATOR (1)
FREQUENCY DOUBLER
MMV (2)
TRIGGER PULSE GENERATOR (2)
OR
TRIGGER PULSE GENERATOR (3)
DOC DETECTOR
A: MUTE Ⓛ
LINEAR (NORMAL) Ⓡ
Hi-Fi/LINEAR DETECTOR
TP4505
REC CURRENT
VR4503
REC AMP
Q4507
Q4509
FL4504 1.8MHz L.P.F.
FL4501 1.7MHz L.P.F.
FL4502 1.3MHz L.P.F.
FL4503 1.4MHz L.P.F.
QR4521
QR4523
QR4522
QR4514
QR4516
QR4515
L-CH FREQUENCY
VR4501(P)
VR4511(N)
QR4526
TP4506
A·H.SW (25Hz)
D.REC 5V
FM.D.REC Ⓛ
S-TAB Ⓛ
Q4522
Q4523
FUSE RESISTOR
R4562
Q4524, QR4512
REGULATOR
UNREG
HI-FI AUDIO AMP
R-CH
L-CH
1.4MHz
1.8MHz
P5502
SW1
E.D.REC Ⓗ
SW2
PB5V
SW3
SW4
A.H.SW
H.AMP SW
PB FM
Q4519
REG. 5V
(PB: ON)
QR4503
V.EE Ⓡ
Q5501
Q5506
C5503
C5505
C5507
C5501
CUT THE DC VOLTAGE
QR5501
QR5502
Q5505 (PB: ON)
Q5508 (PB: ON)
Q5510 (PB: ON)
Q5503 (PB: ON)
QR5504
QR5505
Q5504
Q5507
Q5508
Q5502
P5501
A-L1 HEAD
A-R1 HEAD
A-L2 HEAD
A-R2 HEAD
+B
VR4510
AUDIO HEAD SW
IC4503 (AN3799S)
1/3 PG
CYL FG
MMV
FF
A.H.SW
SWITCHING PULSE GENERATOR (PHASE CONTROL)
SW1
SW2
SW3
SW4
A.H.SW
H.AMP.SW
1/3 PG P4502 4
NTSC Ⓡ P4502 2
CYL FG P4502 5
TP4508 (ENV)
IC5501 (AN3311S)
VCC
AMP
H.AMP SW
HEAD AMP
H.SW: TIMING CHART
40ms
20ms
VIDEO HEAD SW
19.6msec
H.SW1 (IC4503-19)
21.3msec
58.7msec
1.3msec
H.SW2 (IC4503-20)
AUDIO H.SW
H.SW3 (IC4503-21)
H.SW4 (IC4503-22)



VIDEO TAPE
A-R1 (36μm)
V-R1 (60μm)
V-L2 (60μm)
A-L2 (36μm)
FLYING ERASE HEAD (77μm)
A-L1 (36μm)
V-L1 (60μm)
V-R2 (60μm)
A-R2 (36μm)

9-HEAD SYSTEM

NOTE:
RERATIVE SPEED: 4850mm/sec.
FM AUDIO FREQUENCY RESPONSE: 50 20kHz
(* NORMAL AUDIO FREQUENCY RESPONSE: 80 8kHz)
WOW & FLUTTER: LESS THAN 0.005%
AZIMUTH: A-L1. L2 +30
A-R1. R2 −30

AUDIO HEAD SW OPERATION (EX. A-R1 HEAD)

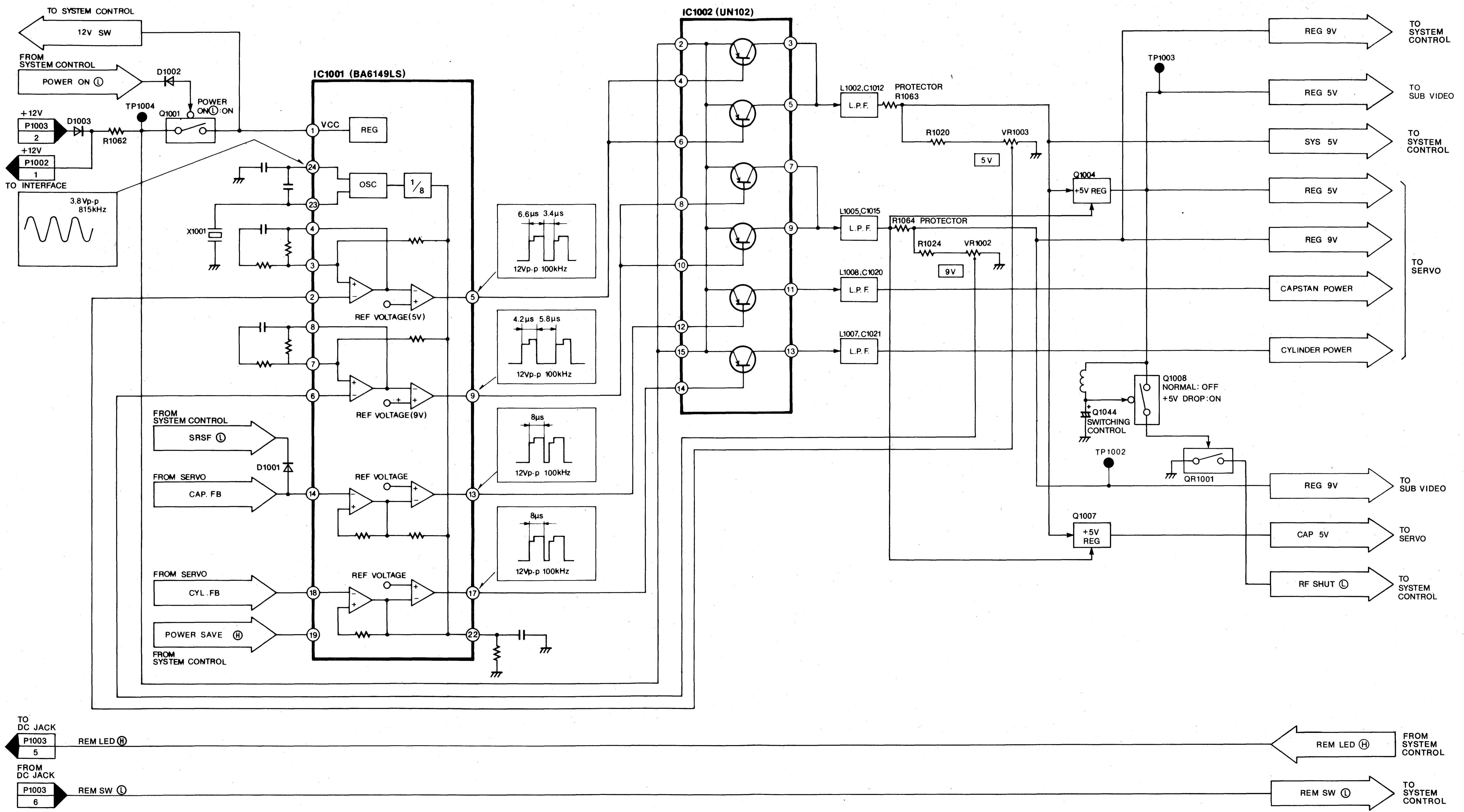
RECORDING

1) QR5001 is turned on during high period of H. SW1.
2) Then, E.D. REC 5V to GND through QR5501 at the same time, Q5501 is turned on.
3) Audio R CH's signal through C5503 to remove DC component and in this time, Q5504 is turned on to GND.

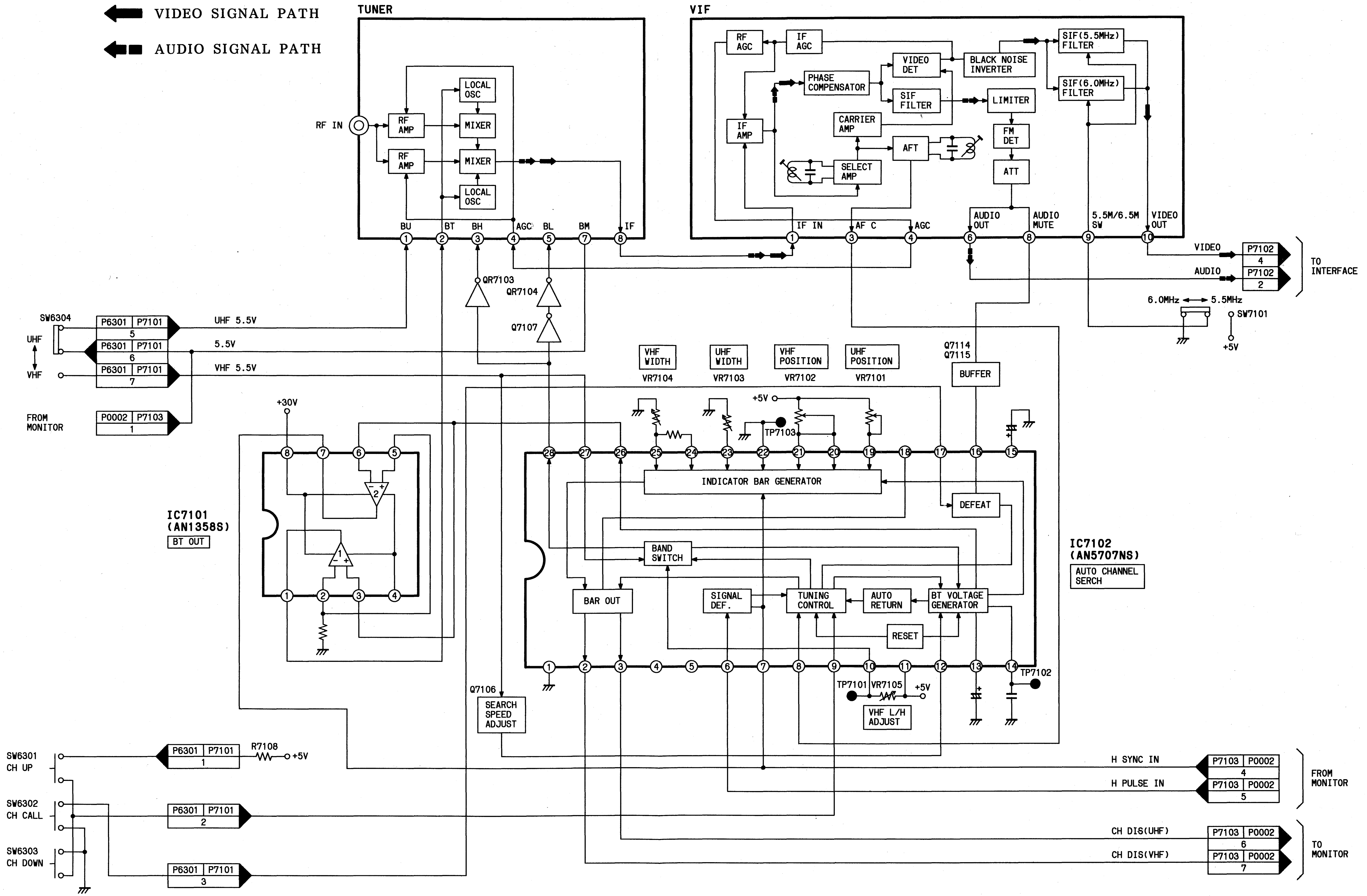
PLAYBACK

1) P.B. 5V turns on Q5505.
2) QR5504 is turned on during low period of H. SW1 to abandon picking up noise from Audio R-1 Head.
3) QR5504 is turned off during high period of H. SW1 to extract the Audio signal from Audio R-1 Head.

3-5. POWER SUPPLY BLOCK DIAGRAM


TO SYSTEM CONTROL
12V SW
FROM SYSTEM CONTROL
POWER ON Ⓛ
D1002
+12V
P1003
2
D1003
R1062
TP1004
Q1001
POWER ON Ⓛ :ON
+12V
P1002
1
TO INTERFACE
3.8Vp-p
815kHz
IC1001 (BA6149LS)
VCC
REG
OSC
1/8
X1001
REF VOLTAGE(5V)
REF VOLTAGE(9V)
FROM SYSTEM CONTROL
SRSF Ⓛ
D1001
FROM SERVO
CAP. FB
REF VOLTAGE
FROM SERVO
CYL .FB
REF VOLTAGE
POWER SAVE Ⓗ
FROM SYSTEM CONTROL
6.6μs 3.4μs
12Vp-p 100kHz
4.2μs 5.8μs
12Vp-p 100kHz
8μs
12Vp-p 100kHz
8μs
12Vp-p 100kHz
IC1002 (UN102)
L1002,C1012
L.P.F.
PROTECTOR
R1063
R1020
VR1003
5V
L1005,C1015
L.P.F.
R1064 PROTECTOR
R1024
VR1002
9V
L1008,C1020
L.P.F.
L1007,C1021
L.P.F.
TP1003
Q1004
+5V REG
Q1008
NORMAL: OFF
+5V DROP:ON
Q1044
SWITCHING CONTROL
TP1002
QR1001
Q1007
+5V REG
REG 9V
TO SYSTEM CONTROL
REG 5V
TO SUB VIDEO
SYS 5V
TO SYSTEM CONTROL
REG 5V
REG 9V
CAPSTAN POWER
CYLINDER POWER
TO SERVO
REG 9V
TO SUB VIDEO
CAP 5V
TO SERVO
RF SHUT Ⓛ
TO SYSTEM CONTROL
TO DC JACK
P1003
5
REM LED Ⓗ
FROM DC JACK
P1003
6
REM SW Ⓛ
REM LED Ⓗ
FROM SYSTEM CONTROL
REM SW Ⓛ
TO SYSTEM CONTROL

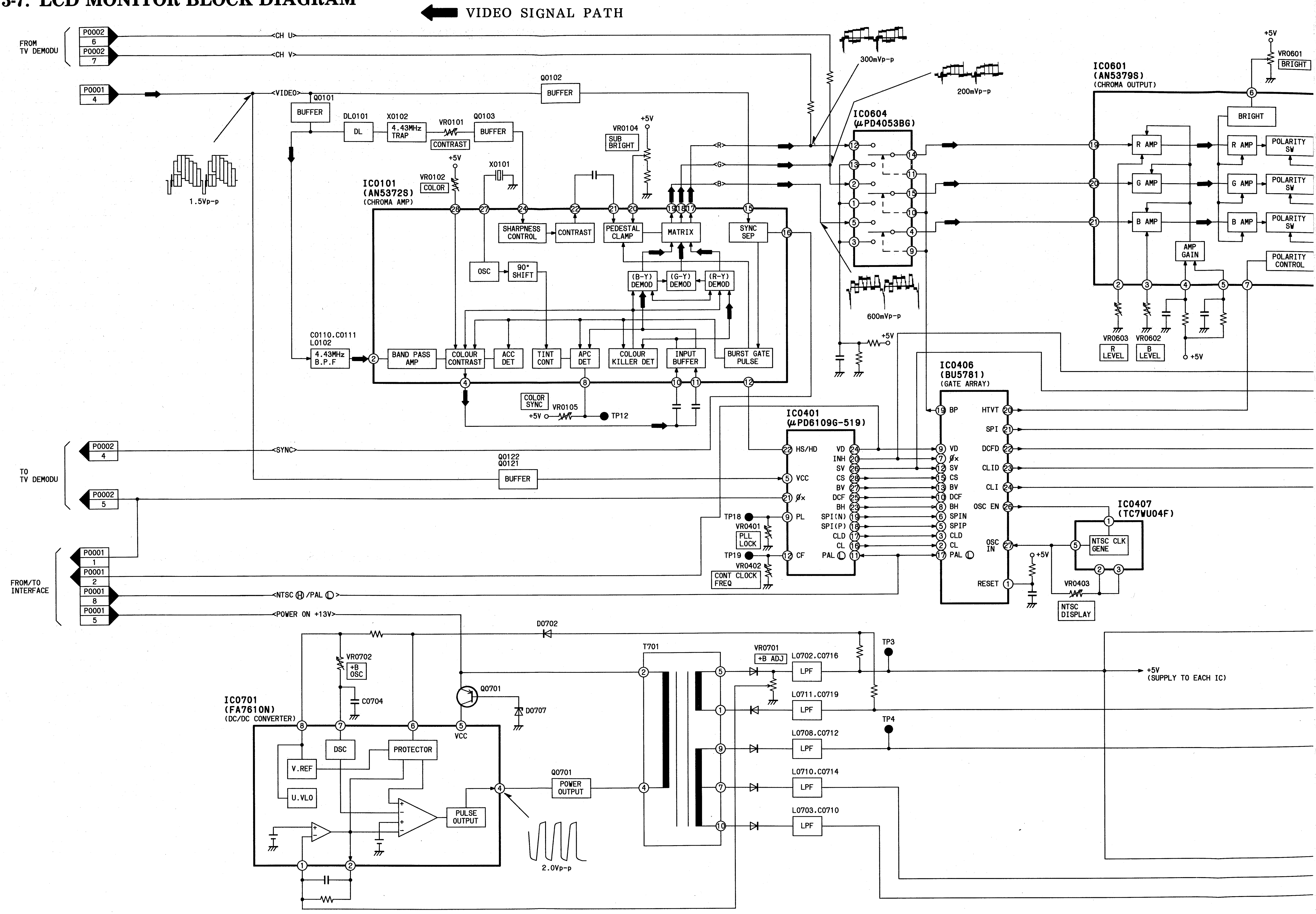
3-6. TV DEMODULATOR BLOCK DIAGRAM



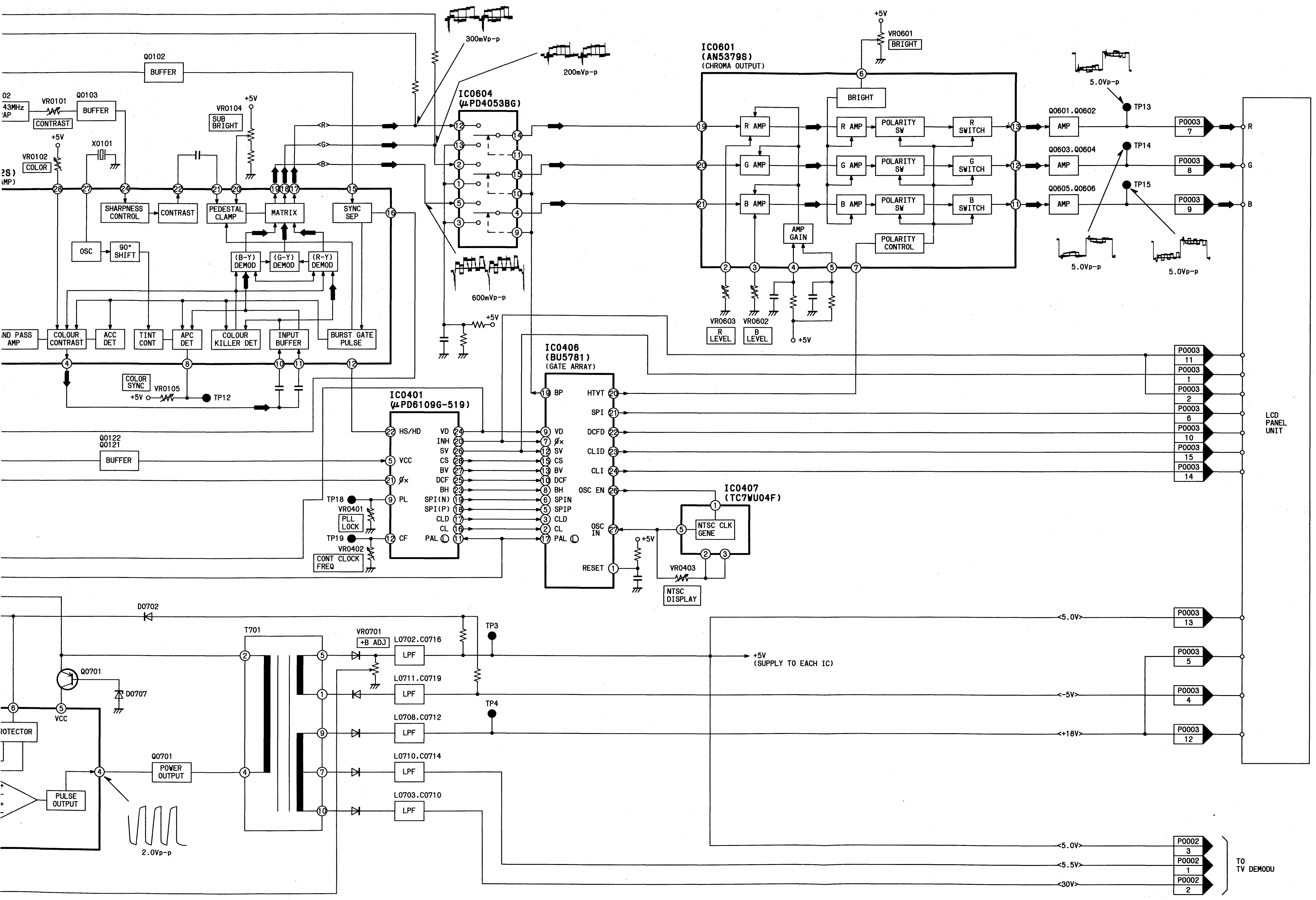
VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
TUNER
RF IN
RF AMP
RF AMP
LOCAL OSC
MIXER
MIXER
LOCAL OSC
BU
BT
BH
AGC
BL
BM
IF
VIF
RF AGC
IF AGC
VIDEO DET
BLACK NOISE INVERTER
SIF(5.5MHz) FILTER
SIF(6.0MHz) FILTER
PHASE COMPENSATOR
SIF FILTER
LIMITER
IF AMP
CARRIER AMP
AFT
FM DET
SELECT AMP
ATT
IF IN
AF C
AGC
AUDIO OUT
AUDIO MUTE
5.5M/6.5M SW
VIDEO OUT
VIDEO
AUDIO
P7102 4
P7102 2
TO INTERFACE
6.0MHz ◄─► 5.5MHz
SW7101
+5V
QR7103
QR7104
Q7107
SW6304
UHF
VHF
P6301 P7101 5
P6301 P7101 6
P6301 P7101 7
UHF 5.5V
5.5V
VHF 5.5V
FROM MONITOR
P0002 P7103 1
+30V
IC7101 (AN1358S)
BT OUT
VHF WIDTH VR7104
UHF WIDTH VR7103
VHF POSITION VR7102
UHF POSITION VR7101
Q7114 Q7115
BUFFER
+5V
TP7103
INDICATOR BAR GENERATOR
DEFEAT
BAND SWITCH
BAR OUT
SIGNAL DEF.
TUNING CONTROL
AUTO RETURN
BT VOLTAGE GENERATOR
RESET
IC7102 (AN5707NS)
AUTO CHANNEL SERCH
TP7102
TP7101
VR7105
+5V
VHF L/H ADJUST
Q7106
SEARCH SPEED ADJUST
SW6301 CH UP
SW6302 CH CALL
SW6303 CH DOWN
P6301 P7101 1
R7108
+5V
P6301 P7101 2
P6301 P7101 3
H SYNC IN
H PULSE IN
P7103 P0002 4
P7103 P0002 5
FROM MONITOR
CH DIS(UHF)
CH DIS(VHF)
P7103 P0002 6
P7103 P0002 7
TO MONITOR

Back Page:
POWER Section

3-7. LCD MONITOR BLOCK DIAGRAM

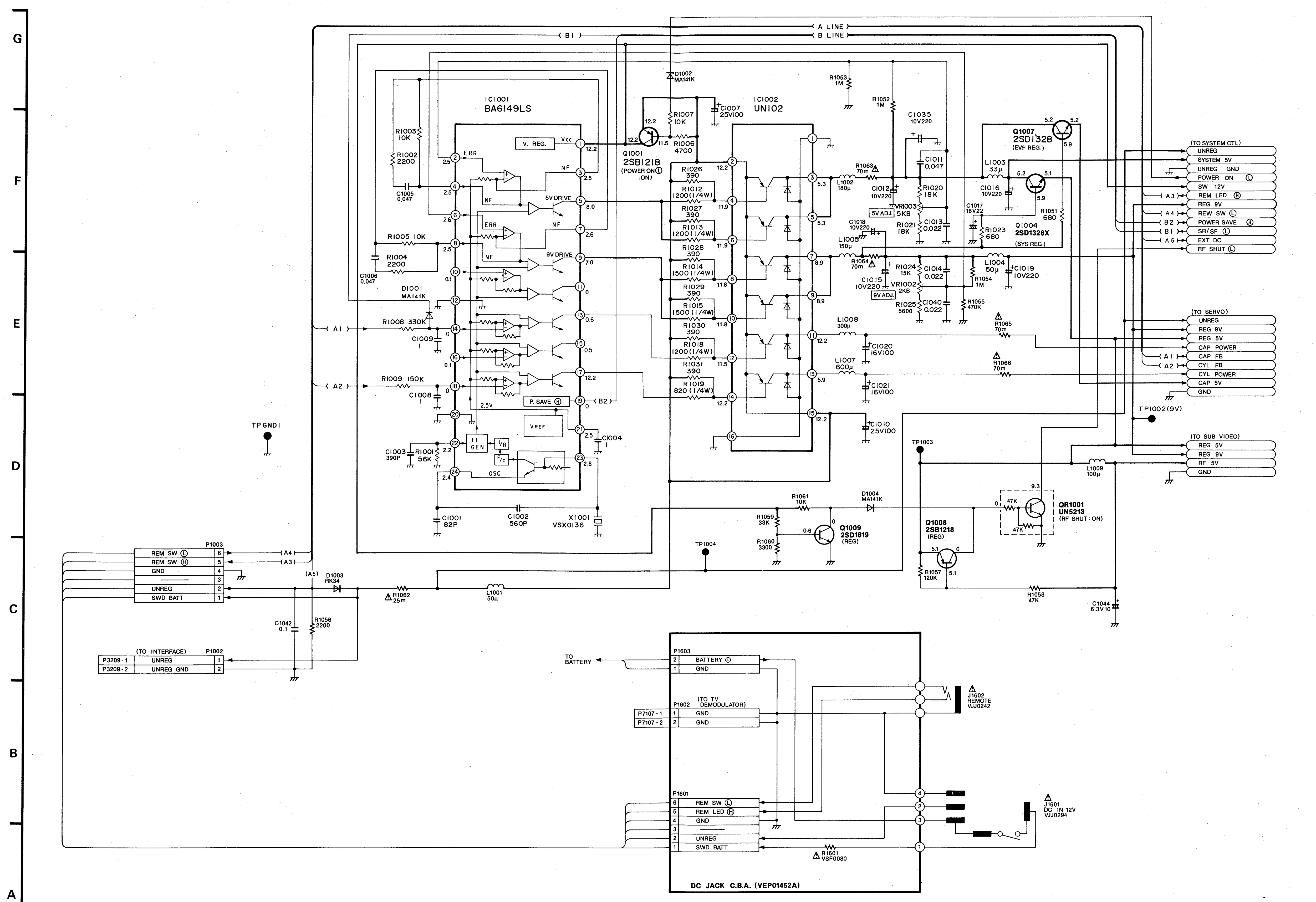

VIDEO SIGNAL PATH
FROM TV DEMODU
P0002 6
P0002 7
<CH U>
<CH V>
P0001 4
<VIDEO>
Q0101
BUFFER
Q0102
BUFFER
1.5Vp-p
300mVp-p
200mVp-p
DL0101
DL
X0102
4.43MHz TRAP
VR0101
CONTRAST
Q0103
BUFFER
+5V
VR0104
SUB BRIGHT
X0101
VR0102
COLOR
IC0101
(AN5372S)
(CHROMA AMP)
SHARPNESS CONTROL
CONTRAST
PEDESTAL CLAMP
MATRIX
SYNC SEP
OSC
90° SHIFT
(B-Y) DEMOD
(G-Y) DEMOD
(R-Y) DEMOD
<R>
<G>
<B>
C0110.C0111
L0102
4.43MHz B.P.F
BAND PASS AMP
COLOUR CONTRAST
ACC DET
TINT CONT
APC DET
COLOUR KILLER DET
INPUT BUFFER
BURST GATE PULSE
COLOR SYNC
VR0105
+5V
TP12
IC0604
(μPD4053BG)
600mVp-p
IC0601
(AN5379S)
(CHROMA OUTPUT)
+5V
VR0601
BRIGHT
BRIGHT
R AMP
G AMP
B AMP
R AMP
G AMP
B AMP
POLARITY SW
POLARITY SW
POLARITY SW
AMP GAIN
POLARITY CONTROL
VR0603
R LEVEL
VR0602
B LEVEL
+5V
IC0406
(BU5781)
(GATE ARRAY)
BP
HTVT
SPI
DCFD
CLID
CLI
OSC EN
OSC IN
RESET
VD
Øx
SV
CS
BV
DCF
BH
SPIN
SPIP
CLD
CL
PAL Ⓛ
IC0401
(μPD6109G-519)
HS/HD
VCC
Øx
PL
CF
VD
INH
SV
CS
BV
DCF
BH
SPI(N)
SPI(P)
CLD
CL
PAL Ⓛ
TP18
VR0401
PLL LOCK
TP19
VR0402
CONT CLOCK FREQ
IC0407
(TC7WU04F)
NTSC CLK GENE
VR0403
NTSC DISPLAY
+5V
TO TV DEMODU
P0002 4
<SYNC>
Q0122
Q0121
BUFFER
P0002 5
FROM/TO INTERFACE
P0001 1
P0001 2
P0001 8
P0001 5
<NTSC Ⓗ/PAL Ⓛ>
<POWER ON +13V>
D0702
VR0702
+B OSC
C0704
Q0701
D0707
IC0701
(FA7610N)
(DC/DC CONVERTER)
VCC
OSC
PROTECTOR
V.REF
U.VLO
PULSE OUTPUT
Q0701
POWER OUTPUT
2.0Vp-p
T701
VR0701
+B ADJ
L0702.C0716
LPF
L0711.C0719
LPF
L0708.C0712
LPF
L0710.C0714
LPF
L0703.C0710
LPF
TP3
TP4
+5V
(SUPPLY TO EACH IC)

VIDEO SIGNAL PATH


300mVp-p
200mVp-p
600mVp-p
5.0Vp-p
Q0102
BUFFER
VR0101
Q0103
BUFFER
43MHz
CONTRAST
VR0102
COLOR
X0101
VR0104
SUB BRIGHT
+5V
SHARPNESS CONTROL
CONTRAST
PEDESTAL CLAMP
MATRIX
SYNC SEP
OSC
90° SHIFT
(B-Y) DEMOD
(G-Y) DEMOD
(R-Y) DEMOD
COLOUR CONTRAST
ACC DET
TINT CONT
APC DET
COLOUR KILLER DET
INPUT BUFFER
BURST GATE PULSE
COLOR SYNC
VR0105
TP12
<R>
<G>
<B>
IC0604
(μPD4053BG)
IC0601
(AN5379S)
(CHROMA OUTPUT)
VR0601
BRIGHT
R AMP
G AMP
B AMP
POLARITY SW
R SWITCH
G SWITCH
B SWITCH
AMP GAIN
POLARITY CONTROL
VR0603
R LEVEL
VR0602
B LEVEL
Q0601.Q0602
Q0603.Q0604
Q0605.Q0606
AMP
TP13
TP14
TP15
P0003
R
G
B
LCD PANEL UNIT
IC0406
(BU5781)
(GATE ARRAY)
BP
HTVT
SPI
DCFD
CLID
CLI
OSC EN
OSC IN
RESET
IC0401
(μPD6109G-519)
HS/HD
VCC
Øx
PL
CF
VD
INH
SV
CS
BV
DCF
BH
SPI(N)
SPI(P)
CLD
CL
PAL
SPIN
SPIP
Q0122
Q0121
BUFFER
TP18
VR0401
PLL LOCK
TP19
VR0402
CONT CLOCK FREQ
IC0407
(TC7WU04F)
NTSC CLK GENE
VR0403
NTSC DISPLAY
D0702
T701
VR0701
+B ADJ
TP3
TP4
L0702.C0716
L0711.C0719
L0708.C0712
L0710.C0714
L0703.C0710
LPF
+5V
(SUPPLY TO EACH IC)
<5.0V>
<-5V>
<+18V>
<5.5V>
<30V>
Q0701
D0707
VCC
ROTECTOR
POWER OUTPUT
PULSE OUTPUT
2.0Vp-p
P0002
TO TV DEMODU

Next Page:
POWER Section

3-8. POWER SUPPLY SCHEMATIC DIAGRAM


G
F
E
D
C
B
A
A LINE
B LINE
B1
D1002
MA141K
R1053
1M
R1052
1M
C1035
10V220
IC1001
BA6149LS
V. REG.
Vcc
ERR
NF
5V DRIVE
9V DRIVE
P. SAVE Ⓗ
VREF
ff GEN
1/8
F/F
OSC
R1003
10K
R1002
2200
C1005
0.047
R1005 10K
R1004
2200
C1006
0.047
D1001
MA141K
R1008 330K
C1009
1
R1009 150K
C1008
1
C1003
390P
R1001
56K
C1001
82P
C1002
560P
X1001
VSX0136
C1004
1
A1
A2
B2
TPGND1
R1007
10K
C1007
25V100
Q1001
2SB1218
(POWER ONⓁ :ON)
R1006
4700
IC1002
UN102
R1026
390
R1012
1200(1/4W)
R1027
390
R1013
1200(1/4W)
R1028
390
R1014
1500(1/4W)
R1029
390
R1015
1500(1/4W)
R1030
390
R1018
1200(1/4W)
R1031
390
R1019
820(1/4W)
R1063
70m
L1002
180μ
C1012
10V220
VR1003
5V ADJ
5KB
R1020
18K
C1011
0.047
R1021
18K
C1013
0.022
C1018
10V220
L1005
150μ
R1064
70m
C1015
10V220
R1024
15K
C1014
0.022
VR1002
9V ADJ
2KB
R1025
5600
C1040
0.022
L1008
300μ
C1020
16V100
L1007
600μ
C1021
16V100
C1010
25V100
Q1007
2SD1328
(EVF REG.)
L1003
33μ
C1016
10V220
C1017
16V22
R1023
680
Q1004
2SD1328X
(SYS REG.)
R1051
680
L1004
50μ
C1019
10V220
R1054
1M
R1055
470K
R1065
70m
R1066
70m
(TO SYSTEM CTL)
UNREG
SYSTEM 5V
UNREG GND
POWER ON Ⓛ
SW 12V
REM LED Ⓗ
REG 9V
REW SW Ⓛ
POWER SAVE Ⓗ
SR/SF Ⓛ
EXT DC
RF SHUT Ⓛ
A3
A4
B2
B1
A5
(TO SERVO)
UNREG
REG 9V
REG 5V
CAP POWER
CAP FB
CYL FB
CYL POWER
CAP 5V
GND
TP1002(9V)
(TO SUB VIDEO)
REG 5V
REG 9V
RF 5V
GND
L1009
100μ
TP1003
R1061
10K
D1004
MA141K
R1059
33K
R1060
3300
Q1009
2SD1819
(REG)
Q1008
2SB1218
(REG)
R1057
120K
QR1001
UN5213
(RF SHUT : ON)
47K
47K
R1058
47K
C1044
6.3V10
TP1004
P1003
REM SW Ⓛ
REM SW Ⓗ
GND
UNREG
SWD BATT
(A5)
D1003
RK34
R1062
25m
L1001
50μ
C1042
0.1
R1056
2200
(TO INTERFACE)
P1002
P3209-1
P3209-2
UNREG
UNREG GND
TO BATTERY
P1603
BATTERY ⊕
GND
P1602
(TO TV DEMODULATOR)
P7107-1
P7107-2
GND
GND
J1602
REMOTE
VJJ0242
P1601
REM SW Ⓛ
REM LED Ⓗ
GND
UNREG
SWD BATT
J1601
DC IN 12V
VJJ0294
R1601
VSF0080
DC JACK C.B.A. (VEP01452A)
1
2
3
4
5
6
7
8
9

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

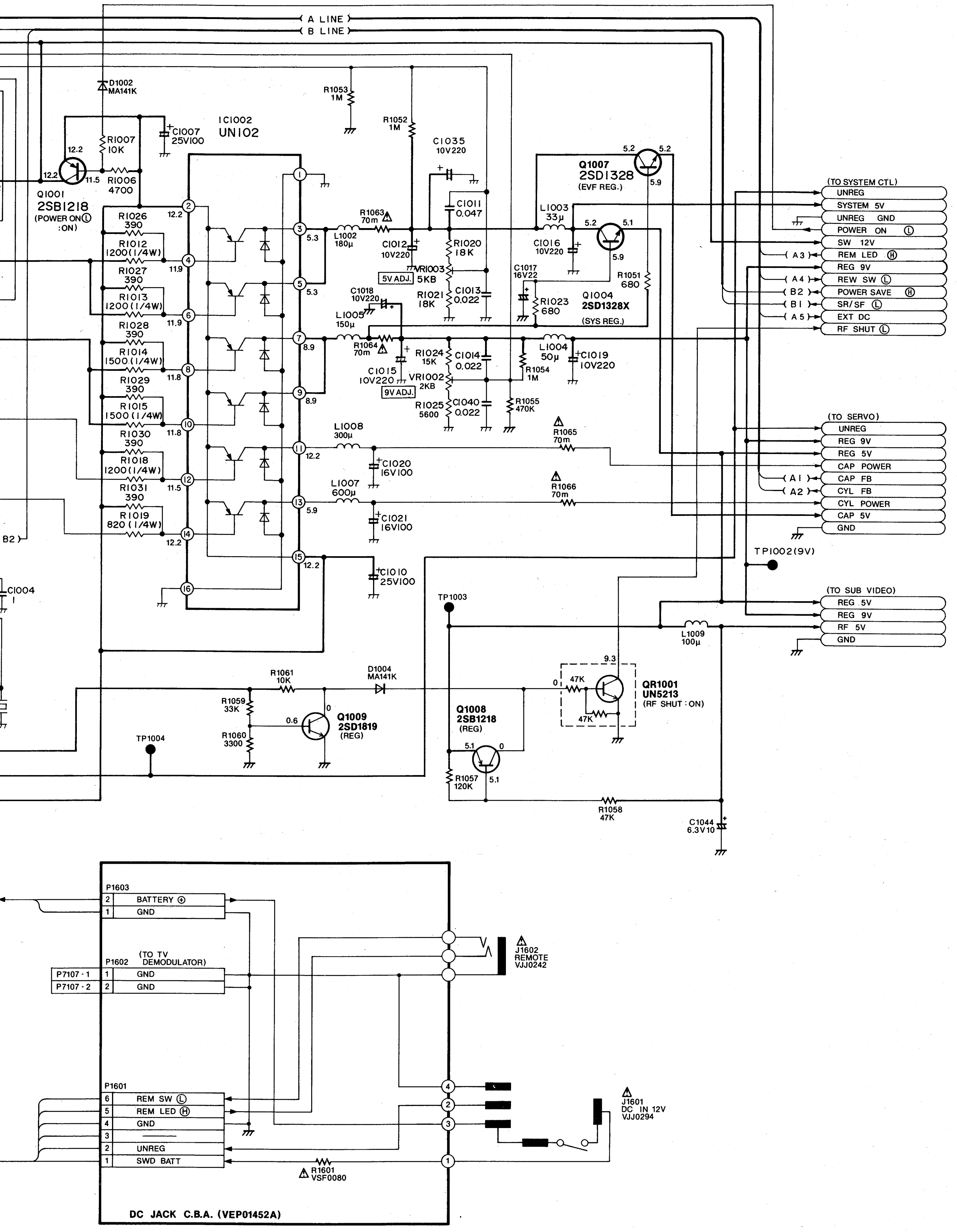
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

SYSTEM CONTROL IC

REF. NO. / MODE					
MODE	1	2	3	4	
STOP	0	0	0	0	3
PLAY	0	0	0	0	3
FF	0	0	0	0	3
REF. NO.					
MODE	21	22	23	24	2
STOP	0.6	1.6	1.6	0	5
PLAY	0	0	0	0	5
FF	0.2	0.7	0.7	0	5
REF. NO.					
MODE	41	42	43	44	4
STOP	4.0	0	0	4.1	8
PLAY	0	5.1	8.6	4.1	8
FF	4.5	0	8.6	4.1	8
REF. NO.					
MODE	61	62	63	64	6
STOP	0	0	0	0	
PLAY	0	2.5	0	0	
FF	0	2.5	5.1	0	
REF. NO.					
MODE	1	2	3	4	
STOP	4.9	5.0	0	5.0	
PLAY	4.8	5.1	0	5.0	
FF	5.1	5.1	0	5.0	
REF. NO.					
MODE	1	2	3	4	
STOP	7.2	12.3	0	0	
PLAY	7.2	12.2	0	0	
FF	7.2	12.1	0	0	
REF. NO.					
MODE	1	2	3	4	
STOP	0.5	5.0	5.0	0	
PLAY	0.5	4.9	5.0	0	
FF	0.5	5.0	5.0	0	
REF. NO.					
MODE	1	2	3		
STOP	0	5.1	5.1		
PLAY	0	5.1	5.1		
FF	0	5.1	5.1		

SYSTEM CONTROL TI

REF. NO.	Q6001			Q6	
MODE	E	C	B	E	
STOP	12.2	6.5	12.2	8.6	8.
PLAY	12.2	6.4	12.2	8.6	8.
FF	12.1	6.4	12.1	8.6	8.
REF. NO.	QR6001 Ⓐ			QR60	
MODE	E	C	B	E	
STOP	5.0	4.8	0.5	5.1	4.
PLAY	5.0	4.8	0.5	5.0	4.
FF	5.0	4.8	0.5	5.0	4.
REF. NO.	QR6006 Ⓐ			QR60	
MODE	E	C	B	E	
STOP	5.0	4.7	5.1	5.0	4.
PLAY	5.0	4.6	5.0	5.0	4.
FF	5.0	4.7	5.1	5.0	4.
REF. NO.	QR6014 Ⓑ			QR6	
MODE	E	C	B	E	
STOP	5.0	4.9	0.6	5.1	5.
PLAY	5.0	4.9	0.6	5.1	
FF	5.0	4.9	0.6	5.1	5.
REF. NO.	QR6027			QR6	
MODE	E	C	B	E	
STOP	−0.1	4.9	−0.1	5.0	4.
PLAY	−0.1	4.8	−0.1	5.0	5.
FF	0.2	4.9	0.2	5.0	4.


A LINE
B LINE
D1002
MA141K
R1053
1M
R1052
1M
C1035
10V220
IC1002
UN102
R1007
10K
C1007
25V100
12.2
11.5
R1006
4700
Q1001
2SB1218
(POWER ON Ⓛ
:ON)
R1026
390
R1012
1200(1/4W)
R1027
390
R1013
1200(1/4W)
R1028
390
R1014
1500(1/4W)
R1029
390
R1015
1500(1/4W)
R1030
390
R1018
1200(1/4W)
R1031
390
R1019
820(1/4W)
11.9
11.8
12.2
5.3
8.9
5.9
R1063
70m
L1002
180μ
C1012
10V220
VR1003
5KB
5V ADJ.
C1011
0.047
R1020
18K
R1021
18K
C1013
0.022
C1018
10V220
L1005
150μ
R1064
70m
C1015
10V220
VR1002
2KB
9V ADJ.
R1024
15K
C1014
0.022
R1025
5600
C1040
0.022
R1055
470K
R1054
1M
L1004
50μ
C1019
10V220
C1017
16V22
R1023
680
Q1004
2SD1328X
(SYS REG.)
L1003
33μ
C1016
10V220
R1051
680
Q1007
2SD1328
(EVF REG.)
5.2
5.1
L1008
300μ
C1020
16V100
L1007
600μ
C1021
16V100
C1010
25V100
R1065
70m
R1066
70m
(TO SYSTEM CTL)
UNREG
SYSTEM 5V
UNREG GND
POWER ON Ⓛ
SW 12V
REM LED Ⓗ
REG 9V
REW SW Ⓛ
POWER SAVE Ⓗ
SR/SF Ⓛ
EXT DC
RF SHUT Ⓛ
A3
A4
B2
B1
A5
(TO SERVO)
UNREG
REG 9V
REG 5V
CAP POWER
CAP FB
CYL FB
CYL POWER
CAP 5V
GND
A1
A2
TP1002(9V)
(TO SUB VIDEO)
REG 5V
REG 9V
RF 5V
GND
TP1003
L1009
100μ
C1004
1
B2
R1061
10K
D1004
MA141K
R1059
33K
R1060
3300
Q1009
2SD1819
(REG)
0.6
0
TP1004
Q1008
2SB1218
(REG)
R1057
120K
R1058
47K
C1044
6.3V10
9.3
47K
47K
QR1001
UN5213
(RF SHUT : ON)
P1603
BATTERY ⊕
GND
P1602
(TO TV DEMODULATOR)
P7107-1
P7107-2
GND
GND
J1602
REMOTE
VJJ0242
P1601
REM SW Ⓛ
REM LED Ⓗ
GND
UNREG
SWD BATT
R1601
VSF0080
J1601
DC IN 12V
VJJ0294
DC JACK C.B.A. (VEP01452A)
5
6
7
8
9

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

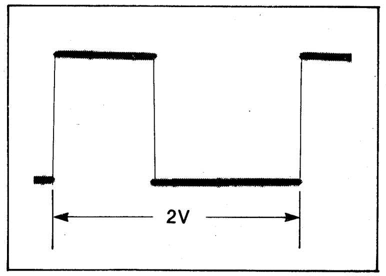
SYSTEM CONTROL ICs DC VOLTAGE CHART

REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	3.0	5.1	4.6	5.0	5.0	0	0	8.6	5.1	5.1	5.1	0	4.0	0	0	5.1
PLAY	0	0	0	0	3.0	5.1	4.6	5.0	5.0	0	0	8.6	5.1	5.0	5.1	5.0	3.4	0	0	5.0
FF	0	0	0	0	3.0	5.1	4.5	5.0	4.9	0	0	7.2	5.0	5.1	5.1	5.0	4.0	0	0	5.1
REF. NO.	IC6002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0.6	1.6	1.6	0	5.1	2.3	1.1	0	0	5.0	5.0	5.1	5.1	5.1	5.0	5.0	5.1	0	0	0
PLAY	0	0	0	0	5.1	2.3	1.1	0	0	5.0	5.1	5.1	5.1	4.3	5.1	5.0	5.0	0.2	4.7	0
FF	0.2	0.7	0.7	0	5.1	2.3	1.2	0	0	5.0	5.1	5.1	5.1	5.1	5.0	5.0	5.1	0	0	0
REF. NO.	IC6002																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	4.0	0	0	4.1	8.6	8.6	0	5.0	5.1	5.0	5.0	5.0	5.1	5.1	0	0	0	0	5.1	0
PLAY	0	5.1	8.6	4.1	8.6	8.6	8.6	5.0	5.0	5.0	5.0	5.0	5.1	5.1	0	0	0	0	5.1	0
FF	4.5	0	8.6	4.1	8.6	8.6	8.6	5.1	5.1	5.0	5.0	5.0	5.1	5.1	0.2	0	0	5.1	5.1	0
REF. NO.	IC6002																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72								
STOP	0	0	0	0	0	0	5.1	0	0	0	5.1	4.2								
PLAY	0	2.5	0	0	0	0	5.1	0	5.1	4.9	5.1	4.2								
FF	0	2.5	5.1	0	0	0	5.1	0	5.1	2.6	5.1	4.2								
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.9	5.0	0	5.0	0	5.2	1.8	2.4	2.4	0	0	0	0	0	0	0	0	5.1	5.1	5.0
PLAY	4.8	5.1	0	5.0	0	0	1.8	2.4	2.4	0	0	0	0	0	0	0	0	5.0	5.0	4.9
FF	5.1	5.1	0	5.0	0	5.2	1.8	2.4	2.4	0	0	0	0	0	0	0	0	5.1	5.1	4.9
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9											
STOP	7.2	12.3	0	0	0	0	0	12.3	7.2											
PLAY	7.2	12.2	0	0	0	0	0	12.2	7.2											
FF	7.2	12.1	0	0	0	0	0	12.1	7.2											
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0.5	5.0	5.0	0	0	0	5.1	0	5.0	5.1	5.0	0	0	5.1	5.1	5.1				
PLAY	0.5	4.9	5.0	0	0	0	5.1	0	5.0	5.0	4.9	5.0	5.1	5.1	5.1	5.1				
FF	0.5	5.0	5.0	0	0	0	5.1	0	4.9	5.0	4.9	0	0	5.1	5.1	5.1				
REF. NO.	IC6007																			
MODE	1	2	3																	
STOP	0	5.1	5.1																	
PLAY	0	5.1	5.1																	
FF	0	5.1	5.1																	

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART

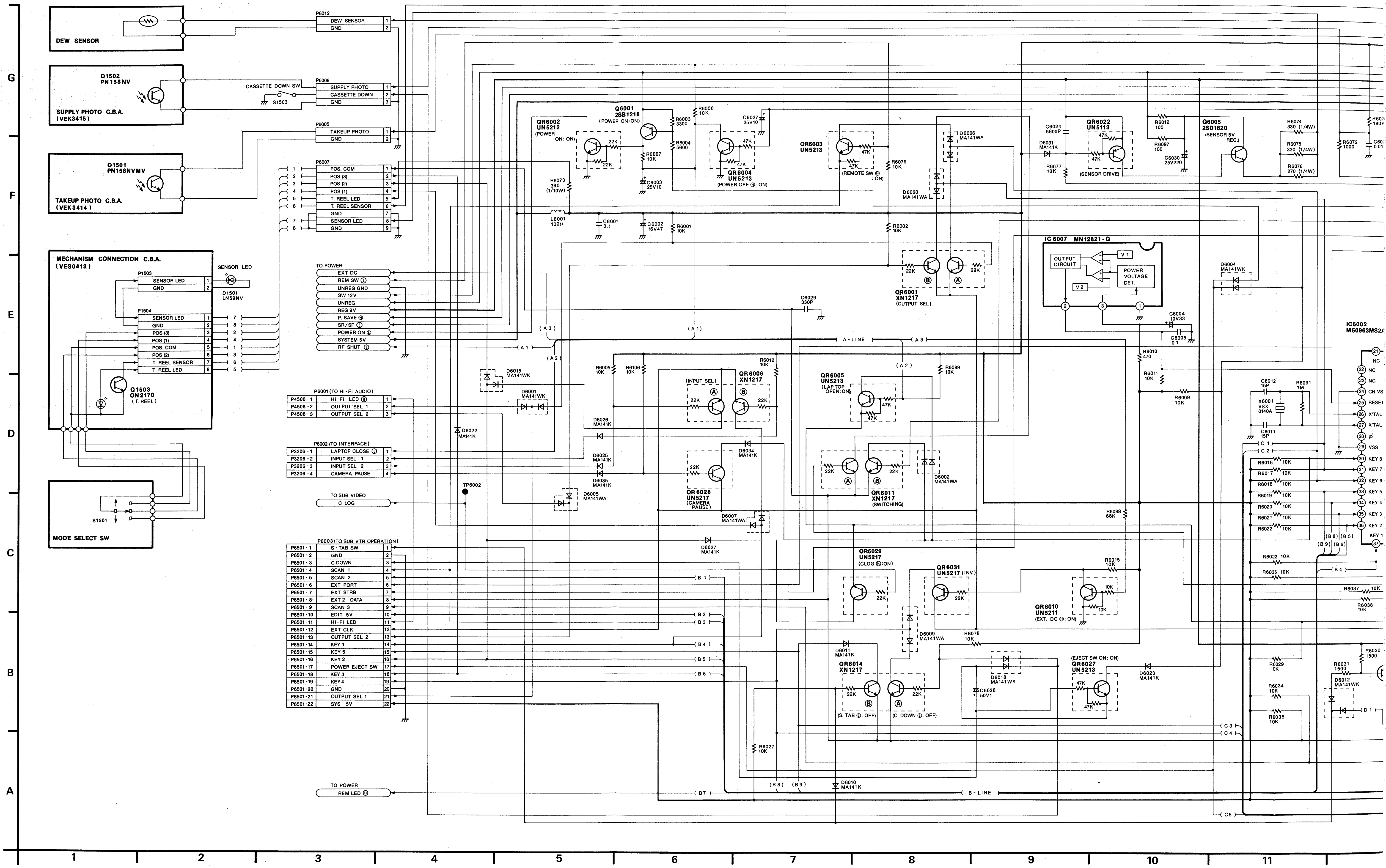
REF. NO.	Q6001			Q6002			Q6004			Q6005			Q6006					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
STOP	12.2	6.5	12.2	8.6	8.6	7.9	7.2	12.3	7.8	0	12.3	0	5.1	0	5.1			
PLAY	12.2	6.4	12.2	8.6	8.6	7.9	7.2	12.2	7.8	0	12.2	0	5.1	0	5.1			
FF	12.1	6.4	12.1	8.6	8.6	7.9	7.2	12.1	7.8	2.9	11.3	3.8	5.1	0	5.1			
REF. NO.	QR6001 Ⓐ			QR6001 Ⓑ			QR6002			QR6003			QR6004			QR6005		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	4.8	0.5	5.1	4.8	0.5	0	0	6.5	5.1	4.8	5.1	0	9.3	0	5.1	4.8	5.1
PLAY	5.0	4.8	0.5	5.0	4.7	0.5	0	0	6.4	5.1	4.7	5.1	0	9.2	0	5.1	4.7	5.1
FF	5.0	4.8	0.5	5.0	4.8	0.5	0	0	6.4	5.1	4.7	5.1	0	9.2	0	5.1	4.7	5.1
REF. NO.	QR6006 Ⓐ			QR6006 Ⓑ			QR6010			QR6011 Ⓐ			QR6011 Ⓑ			QR6014 Ⓐ		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	4.7	5.1	5.0	4.8	0.6	0	0	2.1	5.0	4.7	5.0	5.0	4.7	4.0	5.0	4.8	0.5
PLAY	5.0	4.6	5.0	5.0	4.7	0.6	0	0	2.1	5.0	4.7	4.9	5.0	4.7	3.9	5.0	4.0	0.5
FF	5.0	4.7	5.1	5.0	4.8	0.6	0	0	2.1	5.0	4.8	0	5.0	4.6	4.0	5.0	4.8	0.5
REF. NO.	QR6014 Ⓑ			QR6017			QR6019			QR6020 Ⓐ			QR6020 Ⓑ			QR6022		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	4.9	0.6	5.1	5.1	0	5.1	0	5.1	0	0	0	0	0	0	8.6	1.4	8.5
PLAY	5.0	4.9	0.6	5.1	0	5.1	5.1	2.0	5.1	0	1.5	0	0	2.0	5.0	8.6	0	8.6
FF	5.0	4.9	0.6	5.1	5.1	0	5.1	0	5.1	0	0	0	0	0	5.0	8.6	3.4	8.1
REF. NO.	QR6027			QR6028			QR6029			QR6030			QR6031					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
STOP	−0.1	4.9	−0.1	5.0	4.8	5.1	5.1	4.9	5.1	0	5.1	0	5.0	4.8	0			
PLAY	−0.1	4.8	−0.1	5.0	5.8	5.1	5.1	4.9	0	0	5.1	0	5.0	4.0	0			
FF	0.2	4.9	0.2	5.0	4.8	5.1	5.1	4.8	5.1	0	5.1	0	5.0	4.8	0			

SYSTEM CONTROL CIRCUIT TP WAVEFORM

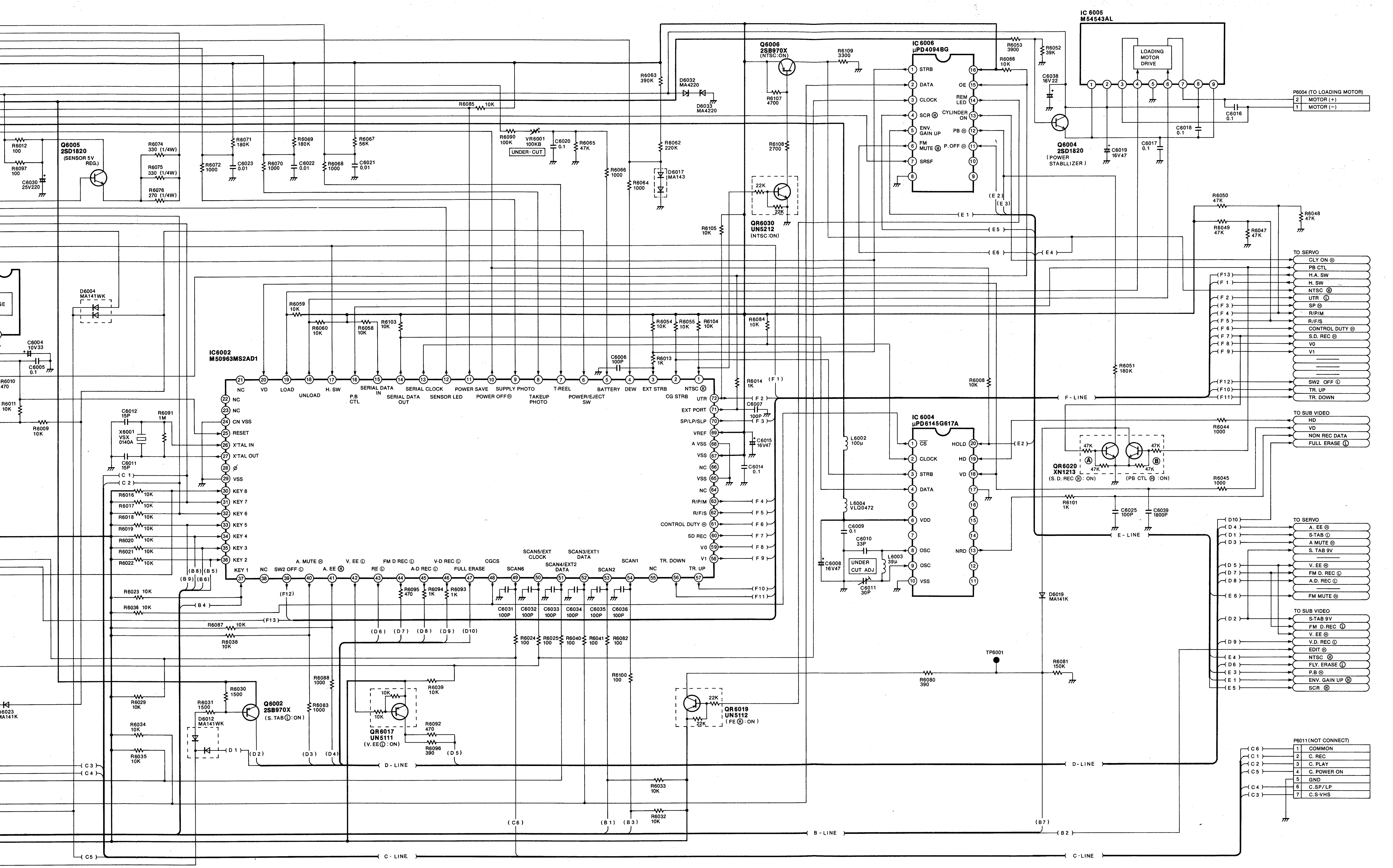


TP6001 PLAY
1.0V/10msec. div. 2.0Vp-p

3-9. SYSTEM CONTROL SCHEMATIC DIAGRAM



DEW SENSOR
Q1502 PN158NV
SUPPLY PHOTO C.B.A. (VEK3415)
Q1501 PN158NVMV
TAKEUP PHOTO C.B.A. (VEK3414)
MECHANISM CONNECTION C.B.A. (VES0413)
P1503
SENSOR LED
GND
P1504
POS (3)
POS (1)
POS. COM
POS (2)
T. REEL SENSOR
T. REEL LED
Q1503 ON2170 (T. REEL)
SENSOR LED
D1501 LN59NV
MODE SELECT SW
S1501
CASSETTE DOWN SW
S1503
P6012
DEW SENSOR
P6006
SUPPLY PHOTO
CASSETTE DOWN
P6005
TAKEUP PHOTO
P6007
TO POWER
EXT DC
REM SW Ⓛ
UNREG GND
SW 12V
UNREG
REG 9V
P. SAVE Ⓗ
SR/SF Ⓛ
POWER ON Ⓛ
SYSTEM 5V
RF SHUT Ⓛ
P6001 (TO HI-FI AUDIO)
P4506 - 1 HI-FI LED Ⓗ
P4506 - 2 OUTPUT SEL 1
P4506 - 3 OUTPUT SEL 2
P6002 (TO INTERFACE)
P3206 - 1 LAPTOP CLOSE Ⓛ
P3206 - 2 INPUT SEL 1
P3206 - 3 INPUT SEL 2
P3206 - 4 CAMERA PAUSE
TO SUB VIDEO
C LOG
TP6002
P6003 (TO SUB VTR OPERATION)
P6501 - 1 S-TAB SW
P6501 - 2 GND
P6501 - 3 C.DOWN
P6501 - 4 SCAN 1
P6501 - 5 SCAN 2
P6501 - 6 EXT PORT
P6501 - 7 EXT STRB
P6501 - 8 EXT2 DATA
P6501 - 9 SCAN 3
P6501 - 10 EDIT 5V
P6501 - 11 HI-FI LED
P6501 - 12 EXT CLK
P6501 - 13 OUTPUT SEL 2
P6501 - 14 KEY 1
P6501 - 15 KEY 5
P6501 - 16 KEY 2
P6501 - 17 POWER EJECT SW
P6501 - 18 KEY 3
P6501 - 19 KEY 4
P6501 - 20 GND
P6501 - 21 OUTPUT SEL 1
P6501 - 22 SYS 5V
TO POWER
REM LED Ⓗ
QR6002 UN5212 (POWER ON: ON)
Q6001 2SB1218 (POWER ON: ON)
R6003 3300
R6006 10K
R6004 5600
R6007 10K
C6003 25V10
R6073 390 (1/10W)
L6001 100μ
C6001 0.1
C6002 16V47
R6001 10K
C6027 25V10
QR6004 UN5213 (POWER OFF Ⓗ: ON)
QR6003 UN5213
(REMOTE SW Ⓗ : ON)
R6079 10K
D6006 MA141WA
D6020 MA141WA
R6002 10K
C6024 5600P
D6031 MA141K
R6077 10K
QR6022 UN5113
(SENSOR DRIVE)
R6012 100
R6097 100
C6030 25V220
Q6005 2SD1820 (SENSOR 5V REG.)
R6074 330 (1/4W)
R6075 330 (1/4W)
R6076 270 (1/4W)
R6072 1000
QR6001 XN1217 (OUTPUT SEL)
IC6007 MN12821-Q
OUTPUT CIRCUIT
V1
V2
POWER VOLTAGE DET.
C6004 10V33
C6005 0.1
C6029 330P
D6004 MA141WK
IC6002 M50963MS2
A-LINE
(A1)
(A2)
(A3)
D6015 MA141WK
D6001 MA141WK
D6022 MA141K
R6005 10K
R6106 10K
R6012 10K
QR6006 XN1217 (INPUT SEL)
QR6005 UN5213 (LAP TOP OPEN: ON)
R6099 10K
R6010 470
R6011 10K
R6009 10K
D6026 MA141K
D6025 MA141K
D6035 MA141K
D6034 MA141K
D6005 MA141WA
QR6028 UN5217 (CAMERA PAUSE)
D6007 MA141WA
QR6011 XN1217 (SWITCHING)
D6002 MA141WA
R6098 68K
D6027 MA141K
C6012 15P
R6091 1M
X6001 VSX 0140A
C6011 15P
NC
CN VSS
RESET
X'TAL
VSS
KEY 8
KEY 7
KEY 6
KEY 5
KEY 4
KEY 3
KEY 2
KEY 1
R6016 10K
R6017 10K
R6018 10K
R6019 10K
R6020 10K
R6021 10K
R6022 10K
R6023 10K
R6036 10K
R6087 10K
R6038 10K
QR6029 UN5217 (CLOG Ⓗ: ON)
QR6031 UN5217 (INV.)
R6015 10K
QR6010 UN5211 (EXT. DC Ⓗ: ON)
D6009 MA141WA
R6078 10K
D6011 MA141K
QR6014 XN1217
(S. TAB Ⓛ. OFF)
(C. DOWN Ⓛ: OFF)
D6018 MA141WK
C6028 50V1
(EJECT SW ON: ON) QR6027 UN5213
D6023 MA141K
R6029 10K
R6034 10K
R6035 10K
R6030 1500
R6031 1500
D6012 MA141WK
R6027 10K
D6010 MA141K
B-LINE
(B1) (B2) (B3) (B4) (B5) (B6) (B7) (B8) (B9)
(C1) (C2) (C3) (C4) (C5)
(D1)
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11

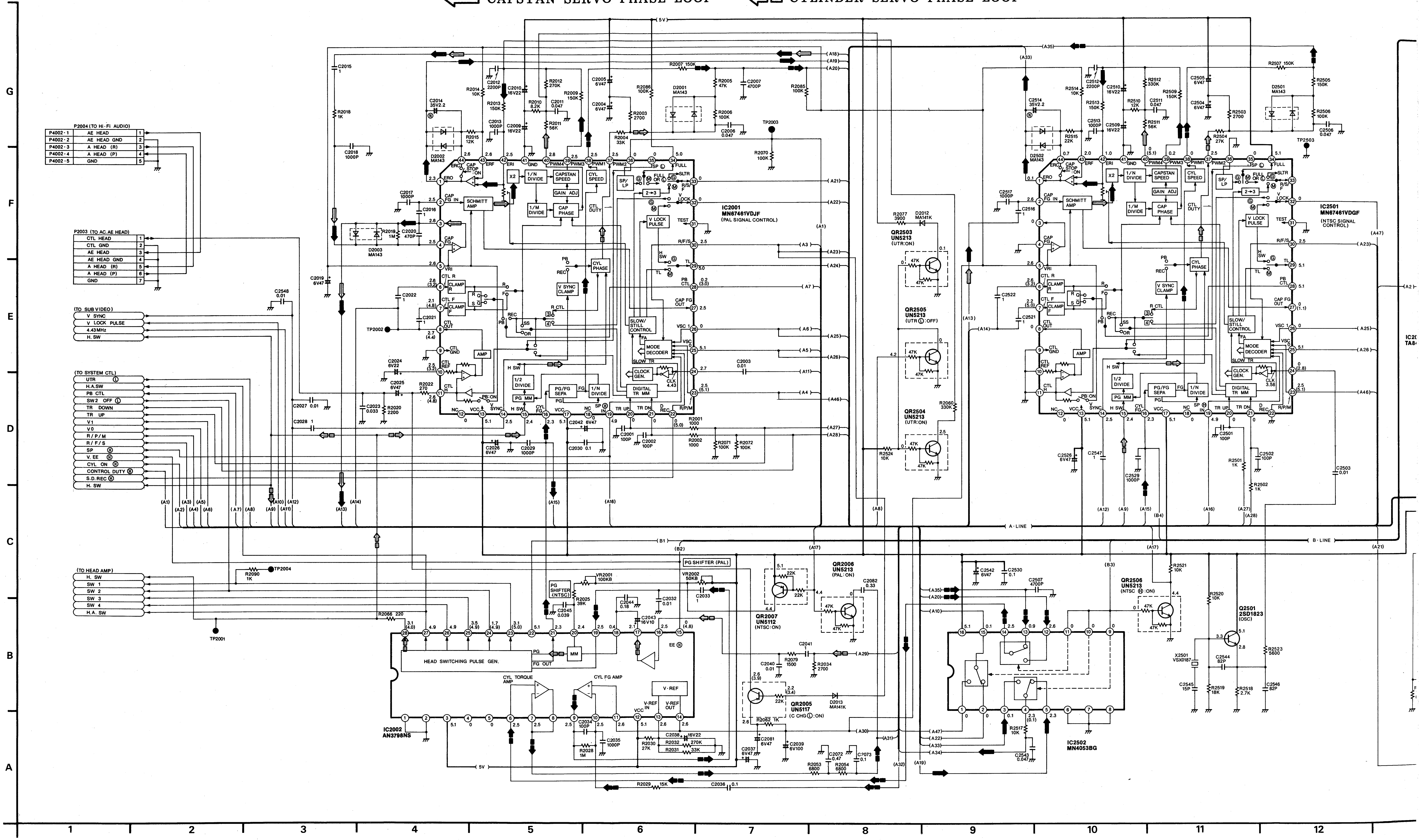

IC6002
M50963MS2AD1
IC 6005
M54543AL
LOADING MOTOR DRIVE
IC 6006
µPD4094BG
STRB
DATA
CLOCK
SCR Ⓗ
ENV. GAIN UP
FM MUTE Ⓗ
SRSF
OE
REM LED
CYLINDER ON
PB Ⓗ
P.OFF Ⓗ
IC 6004
µPD6145G617A
CS
CLOCK
STRB
DATA
VDD
OSC
VSS
HOLD
HD
VD
NRD
Q6006
2SB970X
(NTSC:ON)
Q6005
2SD1820
(SENSOR 5V REG.)
Q6004
2SD1820
(POWER STABLLIZER)
Q6002
2SB970X
(S. TAB Ⓛ : ON)
QR6030
UN5212
(NTSC:ON)
QR6020
XN1213
(S. D. REC Ⓗ : ON)
(PB CTL Ⓗ : ON)
QR6017
UN5111
(V. EE Ⓛ : ON)
QR6019
UN5112
(FE Ⓗ : ON)
D6004
MA141WK
D6012
MA141WK
D6017
MA143
D6019
MA141K
D6032
MA4220
D6033
MA4220
X6001
VSX
0140A
VR6001
100KB
UNDER-CUT
UNDER CUT ADJ
L6002
100µ
L6003
39µ
L6004
VLQ0472
TP6001
NC
VD
LOAD
UNLOAD
H. SW
P.B CTL
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
SENSOR LED
POWER SAVE
POWER OFF Ⓗ
SUPPLY PHOTO
TAKEUP PHOTO
T-REEL
POWER/EJECT SW
BATTERY
DEW
EXT STRB
CG STRB
NTSC Ⓗ
UTR
EXT PORT
SP/LP/SLP
VREF
A VSS
VSS
R/P/M
R/F/S
CONTROL DUTY Ⓗ
SD REC
V0
V1
CN VSS
RESET
X'TAL IN
X'TAL OUT
KEY 8
KEY 7
KEY 6
KEY 5
KEY 4
KEY 3
KEY 2
KEY 1
SW2 OFF Ⓛ
A. MUTE Ⓗ
A. EE Ⓗ
V. EE Ⓛ
RE Ⓛ
FM D REC Ⓛ
A-D REC Ⓛ
V-D REC Ⓛ
FULL ERASE
CGCS
SCAN6
SCAN5/EXT CLOCK
SCAN4/EXT2 DATA
SCAN3/EXT1 DATA
SCAN2
SCAN1
TR. DOWN
TR. UP
P6004 (TO LOADING MOTOR)
MOTOR (+)
MOTOR (−)
TO SERVO
CLY ON Ⓗ
PB CTL
H.A. SW
H. SW
NTSC Ⓗ
UTR Ⓛ
SP Ⓗ
R/P/M
R/F/S
CONTROL DUTY Ⓗ
S.D. REC Ⓗ
V0
V1
SW2 OFF Ⓛ
TR. UP
TR. DOWN
TO SUB VIDEO
HD
VD
NON REC DATA
FULL ERASE Ⓛ
TO SERVO
A. EE Ⓗ
S-TAB Ⓛ
A MUTE Ⓗ
S. TAB 9V
V. EE Ⓗ
FM D. REC Ⓛ
A.D. REC Ⓛ
FM MUTE Ⓗ
TO SUB VIDEO
S-TAB 9V
FM D.REC Ⓛ
V. EE Ⓗ
V.D. REC Ⓛ
EDIT Ⓗ
NTSC Ⓗ
FLY. ERASE Ⓛ
P.B Ⓗ
ENV. GAIN UP Ⓗ
SCR Ⓗ
P6011 (NOT CONNECT)
COMMON
C. REC
C. PLAY
C. POWER ON
GND
C.SP/LP
C.S-VHS
F - LINE
E - LINE
D - LINE
B - LINE
C - LINE

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

10	11	12	13	14	15	16	17	18	19	20	21

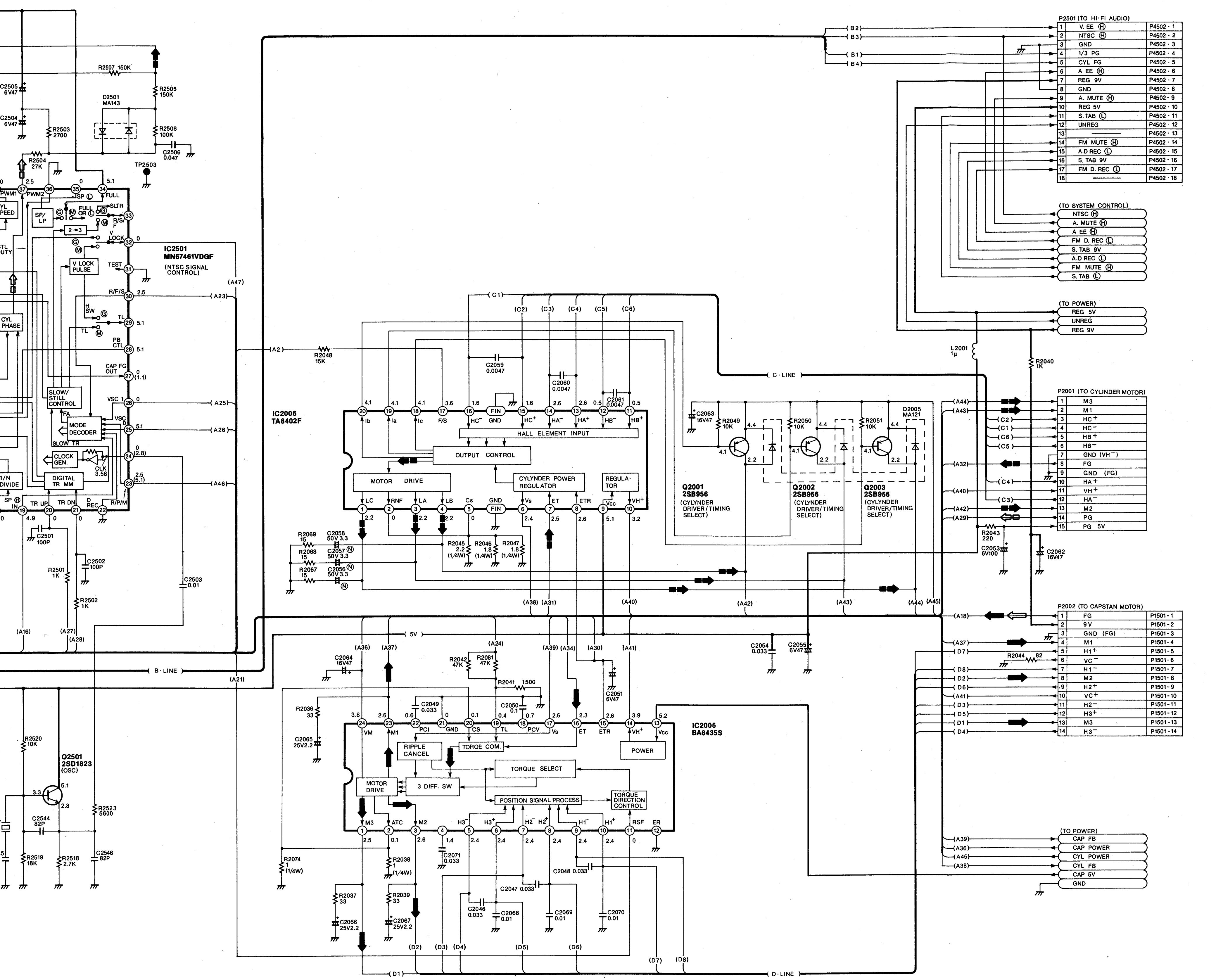
3-10. SERVO SCHEMATIC DIAGRAM

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP



P2004 (TO Hi-Fi AUDIO)
P4002-1 AE HEAD
P4002-2 AE HEAD GND
P4002-3 A HEAD (R)
P4002-4 A HEAD (P)
P4002-5 GND
P2003 (TO AC.AE HEAD)
CTL HEAD
CTL GND
AE HEAD
AE HEAD GND
A HEAD (R)
A HEAD (P)
GND
(TO SUB VIDEO)
V SYNC
V LOCK PULSE
4.43MHz
H. SW
(TO SYSTEM CTL)
UTR
H.A.SW
PB CTL
SW2 OFF
TR DOWN
TR UP
V1
V0
R/P/M
R/F/S
SP
V. EE
CYL ON
CONTROL DUTY
S.D.REC
H. SW
(TO HEAD AMP)
H. SW
SW 1
SW 2
SW 3
SW 4
H.A. SW
TP2001
TP2002
TP2003
TP2004
TP2503
IC2001
MN67461VDJF
(PAL SIGNAL CONTROL)
IC2501
MN67461VDGF
(NTSC SIGNAL CONTROL)
IC2002
AN3798NS
IC2502
MN4053BG
SCHMITT AMP
CAP SPEED
CAP PHASE
CYL SPEED
CYL PHASE
GAIN ADJ
1/N DIVIDE
1/M DIVIDE
V LOCK PULSE
V SYNC CLAMP
SLOW/STILL CONTROL
MODE DECODER
CLOCK GEN.
DIGITAL TR MM
PG/FG SEPA
PG MM
1/2 DIVIDE
HEAD SWITCHING PULSE GEN.
CYL TORQUE AMP
CYL FG AMP
V-REF
PG SHIFTER (NTSC)
PG SHIFTER (PAL)
QR2503 UN5213 (UTR:ON)
QR2505 UN5213 (UTR:OFF)
QR2504 UN5213 (UTR:ON)
QR2006 UN5213 (PAL:ON)
QR2007 UN5112 (NTSC:ON)
QR2005 UN5117 (C CHG:ON)
QR2506 UN5213 (NTSC:ON)
Q2501 2SD1823 (OSC)
X2501 VSX0187
D2001 MA143
D2002 MA143
D2003 MA143
D2501 MA143
D2502 MA143
D2012 MA141K
D2013 MA141K
A-LINE
B-LINE
(5V)
1
2
3
4
5
6
7
8
9
10
11
12
G
F
E
D
C
B
A

Back Page:
SYSTEM CONTROL Section

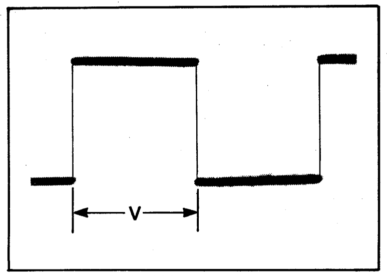

IC2501 MN67461VDGF (NTSC SIGNAL CONTROL)
IC2006 TA8402F
IC2005 BA6435S
Q2001 2SB956 (CYLINDER DRIVER/TIMING SELECT)
Q2002 2SB956 (CYLINDER DRIVER/TIMING SELECT)
Q2003 2SB956 (CYLINDER DRIVER/TIMING SELECT)
Q2501 2SD1823 (OSC)
D2501 MA143
D2005 MA121
L2001 1µ
TP2503
HALL ELEMENT INPUT
OUTPUT CONTROL
MOTOR DRIVE
CYLINDER POWER REGULATOR
REGULATOR
RIPPLE CANCEL
TORQE COM.
TORQUE SELECT
MOTOR DRIVE
3 DIFF. SW
POSITION SIGNAL PROCESS
TORQUE DIRECTION CONTROL
POWER
MODE DECODER
CLOCK GEN.
DIGITAL TR MM
V LOCK PULSE
SLOW/STILL CONTROL
C-LINE
B-LINE
D-LINE
5V
P2501 (TO Hi-Fi AUDIO)
1 V. EE Ⓗ P4502·1
2 NTSC Ⓗ P4502·2
3 GND P4502·3
4 1/3 PG P4502·4
5 CYL FG P4502·5
6 A EE Ⓗ P4502·6
7 REG 9V P4502·7
8 GND P4502·8
9 A. MUTE Ⓗ P4502·9
10 REG 5V P4502·10
11 S. TAB Ⓛ P4502·11
12 UNREG P4502·12
13 P4502·13
14 FM MUTE Ⓗ P4502·14
15 A.D REC Ⓛ P4502·15
16 S. TAB 9V P4502·16
17 FM D. REC Ⓛ P4502·17
18 P4502·18
(TO SYSTEM CONTROL)
NTSC Ⓗ
A. MUTE Ⓗ
A EE Ⓗ
FM D. REC Ⓛ
S. TAB 9V
A.D REC Ⓛ
FM MUTE Ⓗ
S. TAB Ⓛ
(TO POWER)
REG 5V
UNREG
REG 9V
P2001 (TO CYLINDER MOTOR)
1 M3
2 M1
3 HC+
4 HC−
5 HB+
6 HB−
7 GND (VH−)
8 FG
9 GND (FG)
10 HA+
11 VH+
12 HA−
13 M2
14 PG
15 PG 5V
P2002 (TO CAPSTAN MOTOR)
1 FG P1501-1
2 9V P1501-2
3 GND (FG) P1501-3
4 M1 P1501-4
5 H1+ P1501-5
6 VC− P1501-6
7 H1− P1501-7
8 M2 P1501-8
9 H2+ P1501-9
10 VC+ P1501-10
11 H2− P1501-11
12 H3+ P1501-12
13 M3 P1501-13
14 H3− P1501-14
(TO POWER)
CAP FB
CAP POWER
CYL POWER
CYL FB
CAP 5V
GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

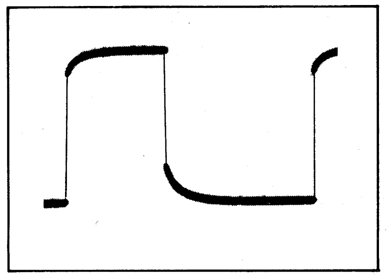
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

11 12 13 14 15 16 17 18 19

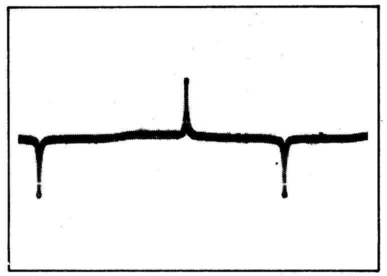
SERVO CIRCUIT TP WAVEFORM



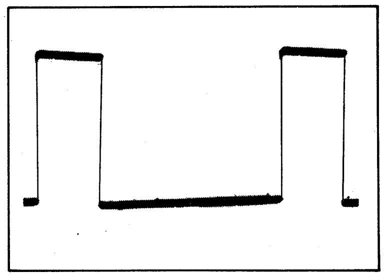
TP2001 REC/PLAY
2.0V/10msec. div. 4.0Vp-p



TP2002 REC
2.0V/10msec. div. 5.0Vp-p

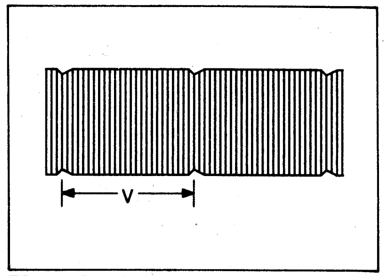


TP2002 PLAY
2.0V10msec. div. 4.0Vp-p

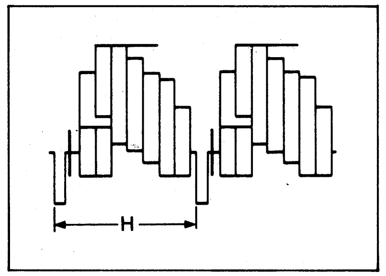


TP2004 REC/PLAY
2.0V/20msec. div. 5.0Vp-p

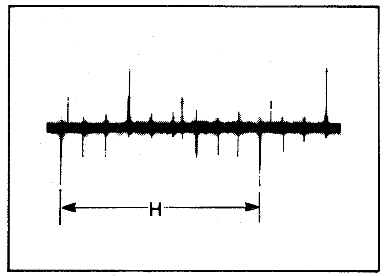
SUB VIDEO CIRCUIT TP WAVEFORM



TP3501 PLAY
50mV/10msec. div. 0.2Vp-p



TP3502 REC: 1.8Vp-p
0.5V/20µsec. div. PLAY: 2.0Vp-p

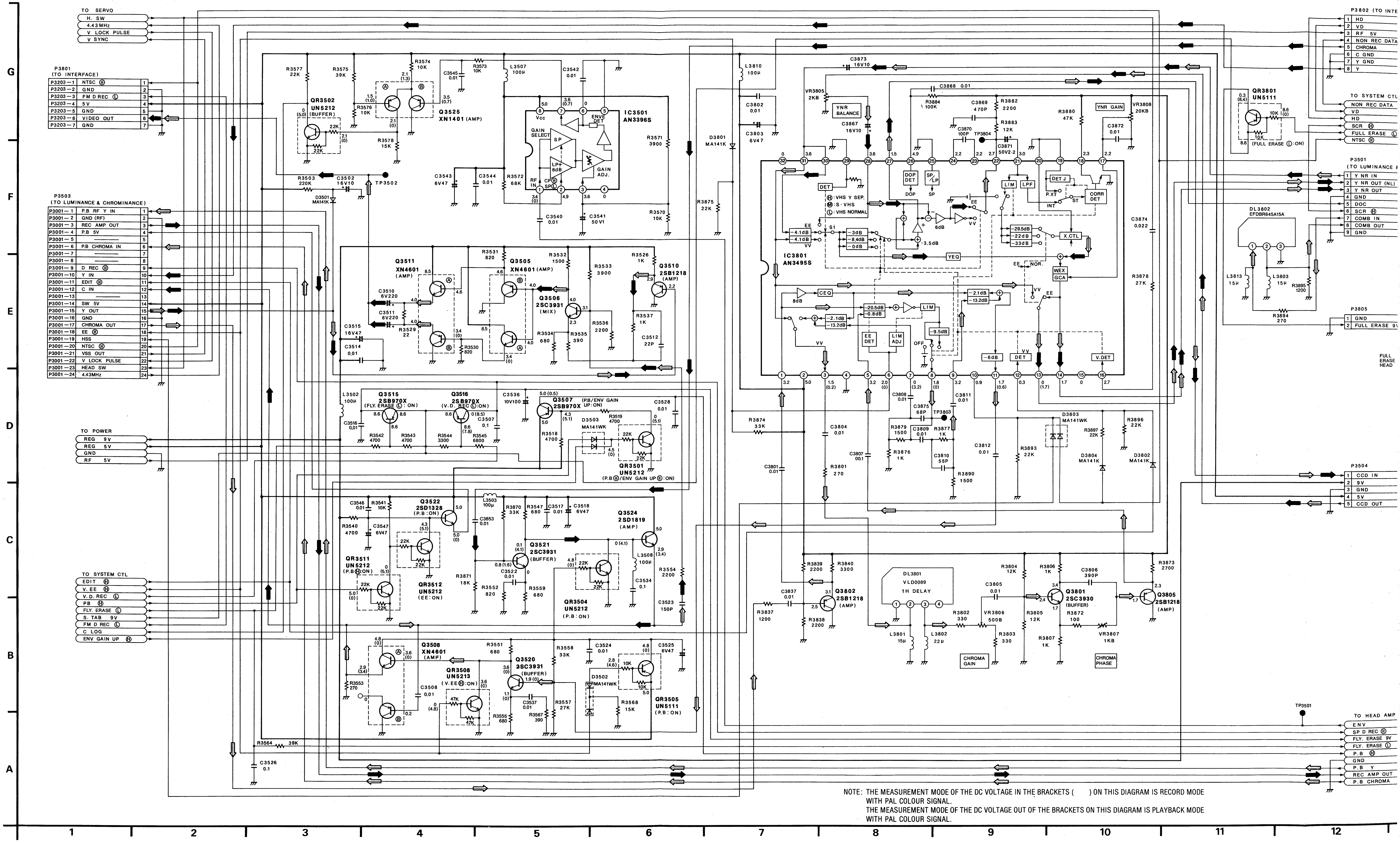


TP3804 REC
0.2V/20µsec. div. 1.0Vp-p

3-11. SUB VIDEO SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

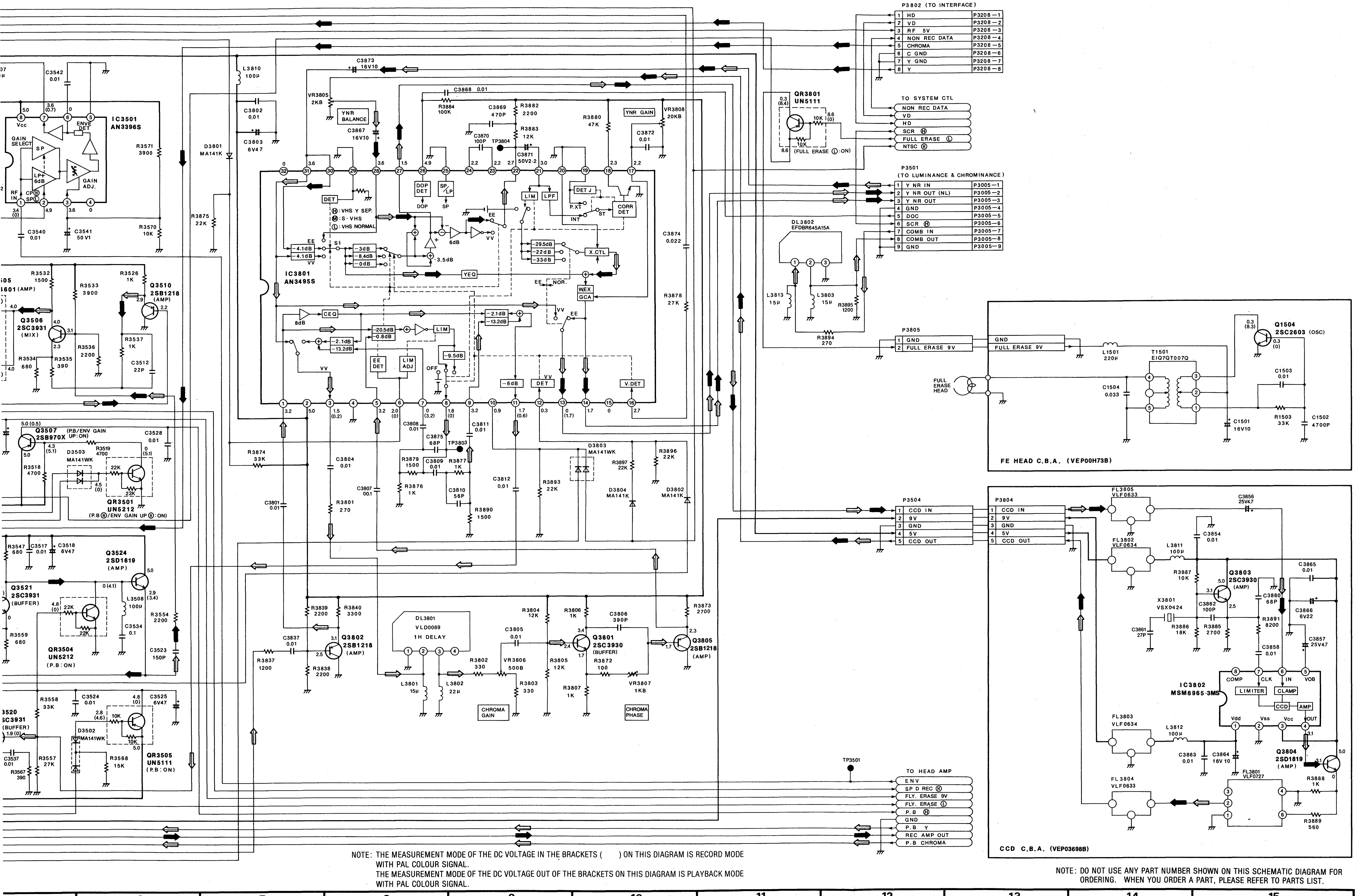
MAIN SIGNAL PATH IN PLAYBACK MODE



TO SERVO
H. SW
4.43MHz
V. LOCK PULSE
V. SYNC
P3801 (TO INTERFACE)
P3203-1 NTSC Ⓗ
P3203-2 GND
P3203-3 FM D REC Ⓛ
P3203-4 5V
P3203-5 GND
P3203-6 VIDEO OUT
P3203-7 GND
P3503 (TO LUMINANCE & CHROMINANCE)
P3001-1 P.B RF Y IN
P3001-2 GND (RF)
P3001-3 REC AMP OUT
P3001-4 P.B 5V
P3001-6 P.B CHROMA IN
P3001-9 D REC Ⓗ
P3001-10 Y IN
P3001-11 EDIT Ⓗ
P3001-12 C IN
P3001-14 SW 5V
P3001-15 Y OUT
P3001-16 GND
P3001-17 CHROMA OUT
P3001-18 EE Ⓗ
P3001-19 HSS
P3001-20 NTSC Ⓗ
P3001-21 VSS OUT
P3001-22 V LOCK PULSE
P3001-23 HEAD SW
P3001-24 4.43MHz
TO POWER
REG 9V
REG 5V
GND
RF 5V
TO SYSTEM CTL
EDIT Ⓗ
V. EE Ⓗ
V.D. REC Ⓛ
PB Ⓗ
FLY. ERASE Ⓛ
S. TAB 9V
FM D REC Ⓛ
C LOG
ENV GAIN UP Ⓗ
QR3502 UN5212 (BUFFER)
Q3525 XN1401 (AMP)
IC3501 AN3396S
GAIN SELECT
SP
ENVE DET
GAIN ADJ.
TP3502
Q3511 XN4601 (AMP)
Q3505 XN4601 (AMP)
Q3506 2SC3931 (MIX)
Q3510 2SB1218 (AMP)
Q3515 2SB970X (FLY. ERASE Ⓛ : ON)
Q3516 2SB970X (V. D. REC Ⓛ:ON)
Q3507 2SB970X (PB/ENV GAIN UP: ON)
QR3501 UN5212 (P.B Ⓗ/ENV GAIN UP Ⓗ:ON)
Q3522 2SD1328 (P.B: ON)
Q3524 2SD1819 (AMP)
Q3521 2SC3931 (BUFFER)
QR3511 UN5212 (P.B Ⓗ: ON)
QR3512 UN5212 (EE: ON)
QR3504 UN5212 (P.B: ON)
Q3508 XN4601 (AMP)
QR3508 UN5213 (V.EE Ⓗ:ON)
Q3520 2SC3931 (BUFFER)
QR3505 UN5111 (P.B: ON)
D3502 MA141WK
D3503 MA141WK
IC3801 AN3495S
Ⓗ: VHS Y SEP.
Ⓜ: S·VHS
Ⓛ: VHS NORMAL
YNR BALANCE
YNR GAIN
DOP DET
SP LP
LIM
LPF
DET J
CORR DET
X.CTL
YEQ
WEX GCA
CEQ
EE DET
LIM ADJ
V.DET
TP3803
QR3801 UN5111 (FULL ERASE Ⓛ :ON)
DL3802 EFDBR645A15A
DL3801 VLD0089 1H DELAY
Q3802 2SB1218 (AMP)
Q3801 2SC3930 (BUFFER)
Q3805 2SB1218 (AMP)
CHROMA GAIN
CHROMA PHASE
P3802 (TO INTE
HD
VD
RF 5V
NON REC DATA
CHROMA
C GND
Y GND
Y
TO SYSTEM CTL
NON REC DATA
VD
HD
SCR Ⓗ
FULL ERASE Ⓛ
NTSC Ⓗ
P3501 (TO LUMINANCE &
Y NR IN
Y NR OUT (NL)
Y NR OUT
GND
DOC
SCR Ⓗ
COMB IN
COMB OUT
GND
P3805
GND
FULL ERASE 9V
FULL ERASE HEAD
P3504
CCD IN
9V
GND
5V
CCD OUT
TP3501
TO HEAD AMP
ENV
SP D REC Ⓗ
FLY. ERASE 9V
FLY. ERASE Ⓛ
P.B Ⓗ
GND
P.B Y
REC AMP OUT
P.B CHROMA
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

■ MAIN SIGNAL PATH IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE


P3802 (TO INTERFACE)
1 HD P3208—1
2 VD P3208—2
3 RF 5V P3208—3
4 NON REC DATA P3208—4
5 CHROMA P3208—5
6 C GND P3208—6
7 Y GND P3208—7
8 Y P3208—8
TO SYSTEM CTL
NON REC DATA
VD
HD
SCR Ⓗ
FULL ERASE Ⓛ
NTSC Ⓗ
QR3801 UN5111
(FULL ERASE Ⓛ:ON)
P3501 (TO LUMINANCE & CHROMINANCE)
1 Y NR IN P3005—1
2 Y NR OUT (NL) P3005—2
3 Y NR OUT P3005—3
4 GND P3005—4
5 DOC P3005—5
6 SCR Ⓗ P3005—6
7 COMB IN P3005—7
8 COMB OUT P3005—8
9 GND P3005—9
DL3802 EFDBR645A15A
P3805
1 GND
2 FULL ERASE 9V
FULL ERASE HEAD
Q1504 2SC2603 (OSC)
T1501 EIQ7QT007Q
FE HEAD C.B.A. (VEP00H73B)
P3504
1 CCD IN
2 9V
3 GND
4 5V
5 CCD OUT
P3804
FL3805 VLF0633
FL3802 VLF0634
FL3803 VLF0634
FL3804 VLF0633
FL3801 VLF0727
Q3803 2SC3930 (AMP)
X3801 VSX0424
IC3802 MSM6965-3MS
COMP CLK IN VOB
LIMITER CLAMP CCD AMP
Vdd Vss Vcc OUT
Q3804 2SD1819 (AMP)
CCD C.B.A. (VEP03698B)
TO HEAD AMP
ENV
SP D REC Ⓗ
FLY. ERASE 9V
FLY. ERASE Ⓛ
P.B Ⓗ
GND
P.B Y
REC AMP OUT
P.B CHROMA
TP3501
IC3501 AN3396S
GAIN SELECT
ENVE DET
GAIN ADJ.
IC3801 AN3495S
YNR BALANCE
YNR GAIN
DOP DET
SP/LP
DET
Ⓗ: VHS Y SEP.
Ⓜ: S-VHS
Ⓛ: VHS NORMAL
LIM LPF
DET J
CORR DET
P.XT INT ST
X.CTL
WEX GCA
EE NOR.
YEQ
CEQ
EE DET
LIM ADJ
V.DET
DL3801 VLD0089 1H DELAY
CHROMA GAIN
CHROMA PHASE
Q3801 2SC3930 (BUFFER)
Q3802 2SB1218 (AMP)
Q3805 2SB1218 (AMP)
Q3510 2SB1218 (AMP)
Q3506 2SC3931 (MIX)
Q3507 2SB970X (P.B/ENV GAIN UP:ON)
QR3501 UN5212 (P.B Ⓗ/ENV GAIN UP Ⓗ:ON)
Q3524 2SD1819 (AMP)
Q3521 2SC3931 (BUFFER)
QR3504 UN5212 (P.B:ON)
QR3505 UN5111 (P.B:ON)
D3801 MA141K
D3802 MA141K
D3803 MA141WK
D3804 MA141K
D3502 MA141WK
D3503 MA141WK

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
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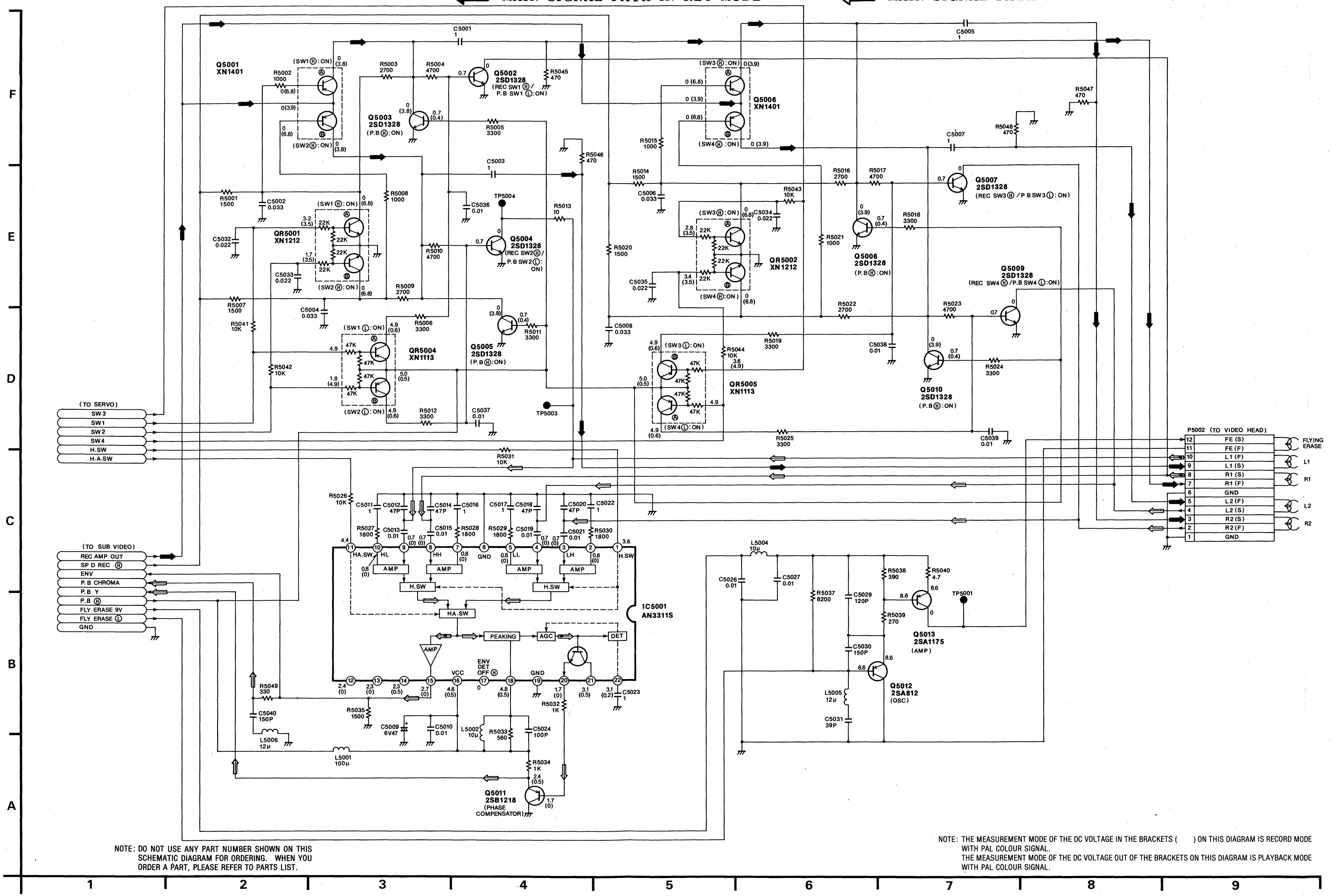
5 6 7 8 9 10 11 12 13 14 15

Next Page:
HEAD AMP Section

3-12. HEAD AMP SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
Q5001 XN1401
(SW1Ⓗ:ON)
(SW2Ⓗ:ON)
Q5002 2SD1328 (REC SW1Ⓗ/P.B SW1Ⓛ:ON)
Q5003 2SD1328 (P.BⒽ:ON)
Q5004 2SD1328 (REC SW2Ⓗ/P.B SW2Ⓛ:ON)
Q5005 2SD1328 (P.BⒽ:ON)
Q5006 XN1401
(SW3Ⓗ:ON)
(SW4Ⓗ:ON)
Q5007 2SD1328 (REC SW3Ⓗ/P.B SW3Ⓛ:ON)
Q5008 2SD1328 (P.BⒽ:ON)
Q5009 2SD1328 (REC SW4Ⓗ/P.B SW4Ⓛ:ON)
Q5010 2SD1328 (P.BⒽ:ON)
QR5001 XN1212
QR5002 XN1212
QR5004 XN1113
(SW1Ⓛ:ON)
(SW2Ⓛ:ON)
QR5005 XN1113
(SW3Ⓛ:ON)
(SW4Ⓛ:ON)
Q5011 2SB1218 (PHASE COMPENSATOR)
Q5012 2SA812 (OSC)
Q5013 2SA1175 (AMP)
IC5001 AN3311S
C5001 1
C5002 0.033
C5003 1
C5004 0.033
C5005 1
C5006 0.033
C5007 1
C5008 0.033
C5009 6V47
C5010 0.01
C5011 1
C5012 47P
C5013 0.01
C5014 47P
C5015 0.01
C5016 1
C5017 1
C5018 47P
C5019 0.01
C5020 47P
C5021 0.01
C5022 1
C5023 1
C5024 100P
C5026 0.01
C5027 0.01
C5029 120P
C5030 150P
C5031 39P
C5032 0.022
C5033 0.022
C5034 0.022
C5035 0.022
C5036 0.01
C5037 0.01
C5038 0.01
C5039 0.01
C5040 150P
R5001 1500
R5002 1000
R5003 2700
R5004 4700
R5005 3300
R5006 3300
R5007 1500
R5008 1000
R5009 2700
R5010 4700
R5011 3300
R5012 3300
R5013 10
R5014 1500
R5015 1000
R5016 2700
R5017 4700
R5018 3300
R5019 3300
R5020 1500
R5021 1000
R5022 2700
R5023 4700
R5024 3300
R5025 3300
R5026 10K
R5027 1800
R5028 1800
R5029 1800
R5030 1800
R5031 10K
R5032 1K
R5033 560
R5034 1K
R5035 1500
R5037 8200
R5038 390
R5039 270
R5040 4.7
R5041 10K
R5042 10K
R5043 10K
R5044 10K
R5045 470
R5046 470
R5047 470
R5048 470
R5049 330
L5001 100μ
L5002 10μ
L5004 10μ
L5005 12μ
L5006 12μ
TP5001
TP5003
TP5004
(TO SERVO)
SW3
SW1
SW2
SW4
H.SW
H.A.SW
(TO SUB VIDEO)
REC AMP OUT
SP D REC Ⓗ
ENV
P.B CHROMA
P.B Y
P.B Ⓗ
FLY ERASE 9V
FLY ERASE Ⓛ
GND
P5002 (TO VIDEO HEAD)
12 FE (S)
11 FE (F)
10 L1 (F)
9 L1 (S)
8 R1 (S)
7 R1 (F)
6 GND
5 L2 (F)
4 L2 (S)
3 R2 (S)
2 R2 (F)
1 GND
FLYING ERASE
L1
R1
L2
R2
HA.SW
HL
HH
GND
LL
LH
H.SW
AMP
H.SW
HA.SW
PEAKING
AGC
DET
AMP
VCC
ENV DET OFF Ⓗ
GND
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

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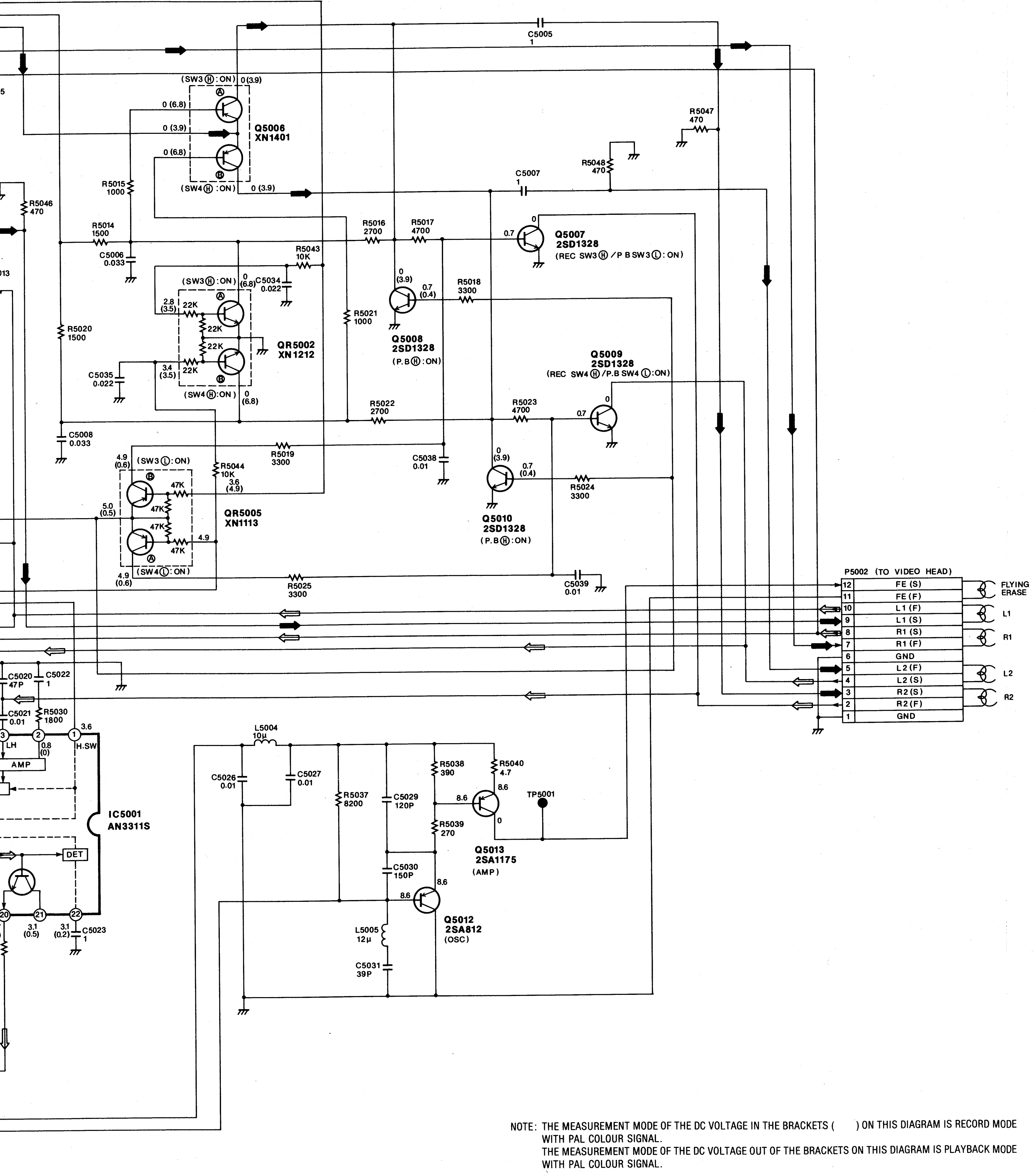
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

GNAL PATH IN REC MODE ⟸ MAIN SIGNAL PATH IN PLAYBACK MODE


C5005
1
(SW3Ⓗ:ON) 0(3.9)
0 (6.8)
0 (3.9)
0 (6.8)
Q5006
XN1401
(SW4Ⓗ:ON) 0 (3.9)
R5015
1000
R5046
470
R5014
1500
C5006
0.033
R5047
470
R5048
470
C5007
1
R5016
2700
R5017
4700
Q5007
2SD1328
(REC SW3Ⓗ/P B SW3Ⓛ:ON)
R5043
10K
(SW3Ⓗ:ON)
C5034
0.022
22K
QR5002
XN1212
(SW4Ⓗ:ON)
R5021
1000
Q5008
2SD1328
(P.BⒽ:ON)
R5018
3300
Q5009
2SD1328
(REC SW4Ⓗ/P.B SW4Ⓛ:ON)
R5020
1500
C5035
0.022
C5008
0.033
R5022
2700
R5023
4700
C5038
0.01
(SW3Ⓛ:ON)
R5044
10K
R5019
3300
47K
QR5005
XN1113
(SW4Ⓛ:ON)
Q5010
2SD1328
(P.BⒽ:ON)
R5024
3300
R5025
3300
C5039
0.01
P5002 (TO VIDEO HEAD)
12 FE (S)
11 FE (F)
10 L1 (F)
9 L1 (S)
8 R1 (S)
7 R1 (F)
6 GND
5 L2 (F)
4 L2 (S)
3 R2 (S)
2 R2 (F)
1 GND
FLYING ERASE
L1
R1
L2
R2
C5020
47P
C5022
1
C5021
0.01
R5030
1800
LH
H.SW
AMP
IC5001
AN3311S
DET
C5023
1
L5004
10μ
C5026
0.01
C5027
0.01
R5037
8200
C5029
120P
R5038
390
R5040
4.7
R5039
270
TP5001
Q5013
2SA1175
(AMP)
C5030
150P
Q5012
2SA812
(OSC)
L5005
12μ
C5031
39P
5
6
7
8
9

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

MAIN C.B.A. ADDRESS INFORMATION

POWER SUPPLY Section	
Transistor	
Q1001	E-13 Ⓕ
Q1004	D-12 Ⓕ
Q1007	D-13 Ⓕ
Q1008	D-21 Ⓕ
Q1009	C-14 Ⓕ
Transistor & Resistor	
QR1001	D-21 Ⓕ
Integrated Circuit	
IC1001	E-10 ©
IC1002	D-9 ©
Test Point	
TP1002	C-8 ©
TP1002	C-15 Ⓕ
TP1003	C-7 ©
TP1003	C-16 Ⓕ
TP1004	D-11 ©
TP1004	D-12 Ⓕ
TP GND	A-5 ©
TP GND	A-18 Ⓕ
Adjustment	
VR1002	D-14 Ⓕ
VR1003	D-14 Ⓕ
Connector	
P1002	E-11 ©
P1002	E-12 Ⓕ
P1003	E-9 ©
P1003	E-14 Ⓕ
P1601	F-11
P1602	F-11
P1603	F-11

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

HEAD AMP Section	
Transistor	
Q5001	E-5 ©
Q5002	E-18 Ⓕ
Q5003	E-5 ©
Q5004	E-17 Ⓕ
Q5005	E-6 ©
Q5006	D-5 ©
Q5007	E-18 Ⓕ
Q5008	E-5 ©
Q5009	E-18 Ⓕ
Q5010	E-5 ©
Q5011	C-18 Ⓕ
Q5012	E-4 ©
Q5013	E-4 ©
Transistor & Resistor	
QR5001	D-6 ©
QR5002	D-5 ©
QR5004	E-6 ©
QR5005	E-4 ©
Integrated Circuit	
IC5001	D-18 Ⓕ
Test Point	
TP5001	E-4 ©
TP5001	E-19 Ⓕ
TP5003	E-5 ©
TP5003	E-18 Ⓕ
TP5004	E-5 ©
TP5004	E-18 Ⓕ
Connector	
P5002	D-5 ©
P5002	D-18 Ⓕ

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

SYSTEM CONTROL Section	
Transistor	
Q1501	F-6
Q1502	F-7
Q1503	F-9
Q6001	C-14 Ⓕ
Q6002	A-15 Ⓕ
Q6004	B-14 Ⓕ
Q6005	C-15 Ⓕ
Q6006	A-5 ©
Transistor & Resistor	
QR6001	A-12 Ⓕ
QR6002	C-15 Ⓕ
QR6003	C-13 Ⓕ
QR6004	B-14 Ⓕ
QR6005	A-10 ©
QR6006	A-13 Ⓕ
QR6010	C-13 Ⓕ
QR6011	B-10 ©
QR6014	B-13 Ⓕ
QR6017	A-13 Ⓕ
QR6019	B-11 ©
QR6020	B-14 Ⓕ
QR6022	A-15 Ⓕ
QR6027	B-13 Ⓕ
QR6028	B-11 ©
QR6029	A-11 ©
QR6030	A-9 ©
QR6031	C-13 Ⓕ
Integrated Circuit	
IC6002	B-10 ©
IC6004	C-13 Ⓕ
IC6005	A-8 ©
IC6006	B-13 Ⓕ
IC6007	A-11 ©
Test Point	
TP6001	D-8 ©
TP6001	D-15 Ⓕ
TP6002	C-5 ©
TP6002	C-18 Ⓕ
Adjustment	
C6001	C-12 Ⓕ
VR6001	C-14 Ⓕ
Connector	
P1503	F-8
P1504	F-8
P6001	B-11 ©
P6001	B-12 Ⓕ
P6002	A-10 ©
P6002	A-13 Ⓕ
P6003	C-11 ©
P6003	C-12 Ⓕ
P6004	B-8 ©
P6004	B-15 Ⓕ
P6005	C-9 ©
P6005	C-14 Ⓕ
P6006	B-8 ©
P6006	B-14 Ⓕ
P6007	C-9 ©
P6007	C-14 Ⓕ
P6011	A-10 ©
P6011	A-13 Ⓕ
P6012	C-8 ©
P6012	C-15 Ⓕ

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

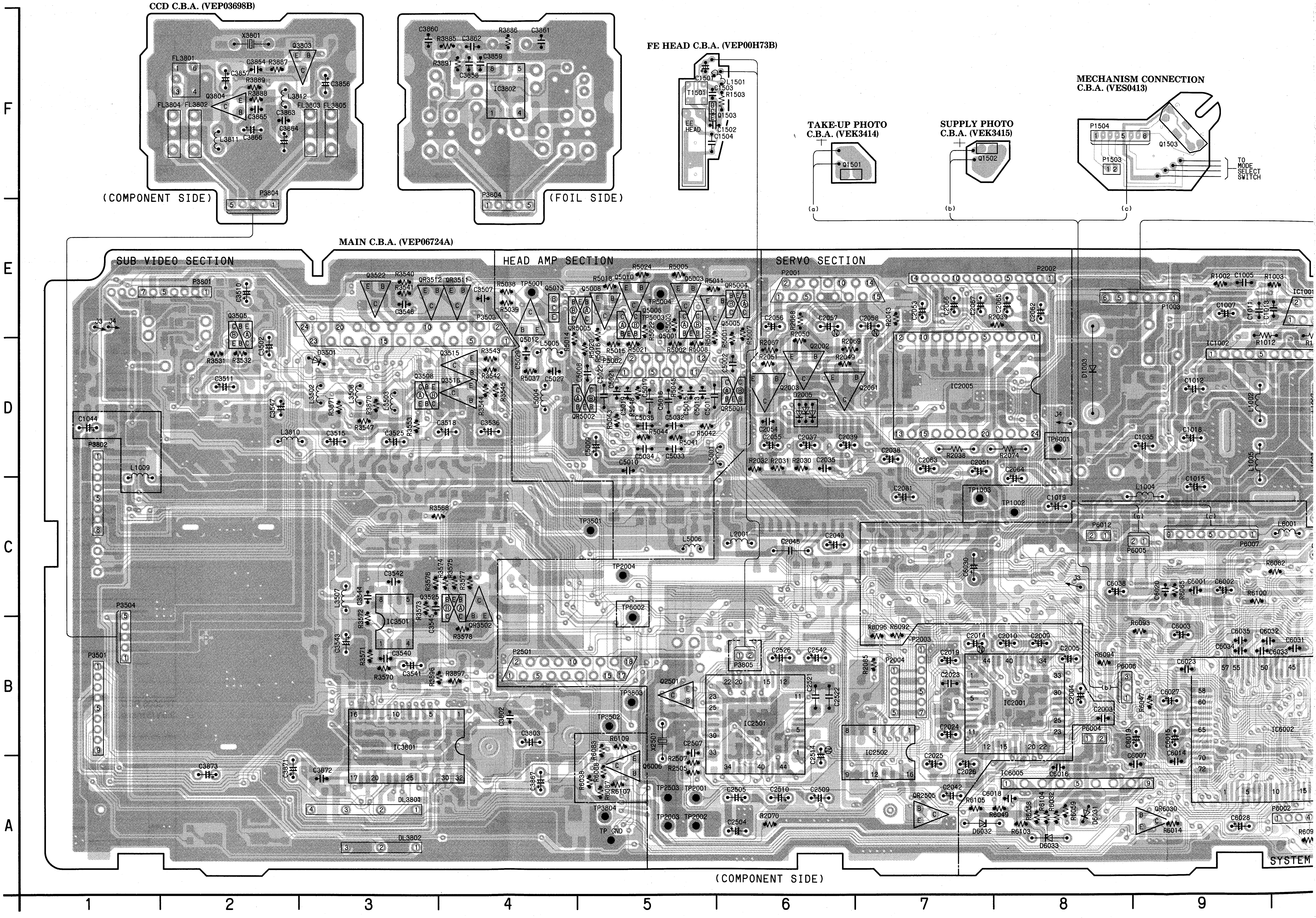
SERVO Section	
Transistor	
Q2001	D-7 ©
Q2006	D-6 ©
Q2003	D-6 ©
Q2501	B-5 ©
Transistor & Resistor	
QR2005	C-16 Ⓕ
QR2006	B-16 Ⓕ
QR2007	C-17 Ⓕ
QR2503	A-16 Ⓕ
QR2504	A-16 Ⓕ
QR2505	A-7 ©
QR2506	A-16 Ⓕ
Integrated Circuit	
IC2001	B-8 ©
IC2002	C-17 Ⓕ
IC2005	D-7 ©
IC2006	D-17 Ⓕ
IC2501	B-6 ©
IC2502	B-7 ©
Test Point	
TP2001	A-5 ©
TP2001	A-18 Ⓕ
TP2002	A-5 ©
TP2002	A-18 Ⓕ
TP2003	A-5 ©
TP2003	A-18 Ⓕ
TP2004	C-5 ©
TP2004	C-18 Ⓕ
TP2503	A-5 ©
TP2503	A-18 Ⓕ
Adjustment	
VR2001	B-17 Ⓕ
VR2002	C-16 Ⓕ
Connector	
P2001	E-6 ©
P2001	E-17 Ⓕ
P2002	E-8 ©
P2002	E-15 Ⓕ
P2003	B-7 ©
P2003	B-16 Ⓕ
P2004	B-7 ©
P2004	B-16 Ⓕ
P2501	B-4- ©
P2501	B-19 Ⓕ

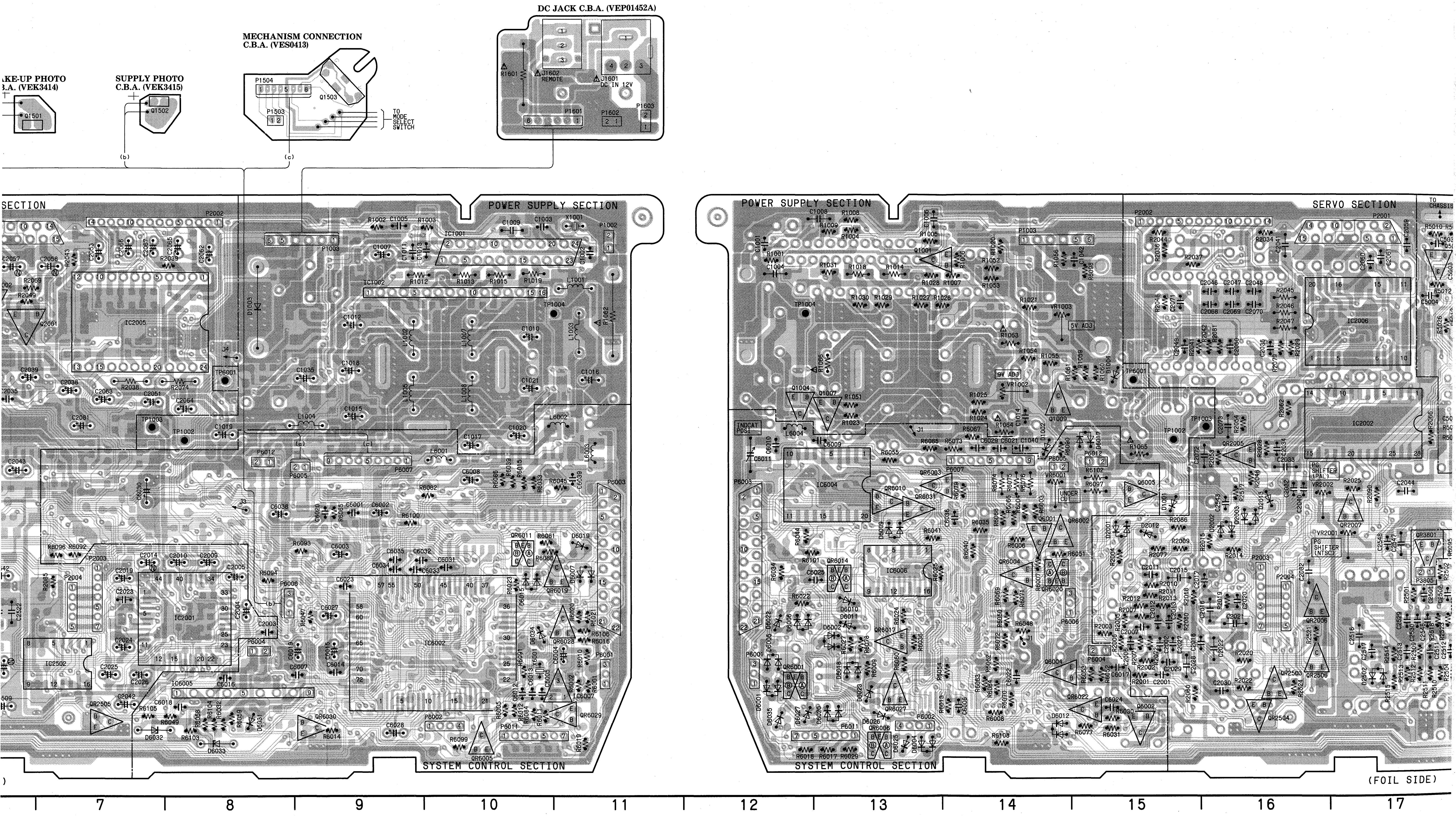
ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

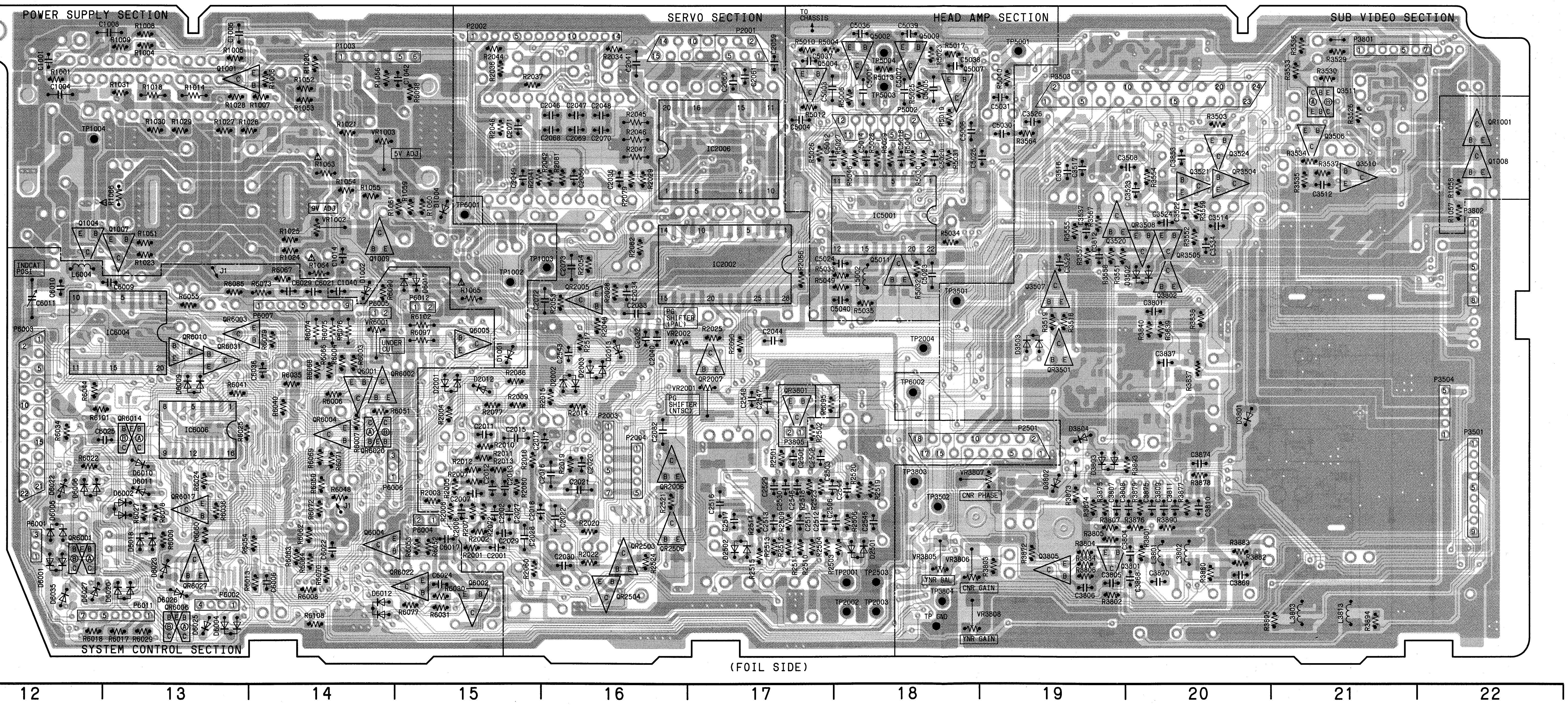
3-13. MAIN C.B.A. (VEP06724A)

SUB VIDEO Section		
Transistor		
Q1503	F-6	
Q3505	E-2	Ⓒ
Q3506	D-21	Ⓕ
Q3507	C-19	Ⓕ
Q3508	D-3	Ⓒ
Q3510	D-21	Ⓕ
Q3511	E-21	Ⓕ
Q3515	D-4	Ⓒ
Q3516	D-4	Ⓒ
Q3520	D-19	Ⓕ
Q3521	D-20	Ⓕ
Q3522	E-3	Ⓒ
Q3524	D-20	Ⓕ
Q3525	C-3	Ⓒ
Q3801	A-20	Ⓕ
Q3802	C-20	Ⓕ
Q3803	F-3	Ⓒ
Q3804	F-2	Ⓒ
Q3805	A-19	Ⓕ
Transistor & Resistor		
QR3501	C-19	Ⓕ
QR3502	B-4	Ⓒ
QR3504	D-20	Ⓕ
QR3505	C-20	Ⓕ
QR3508	D-20	Ⓕ
QR3511	E-4	Ⓒ
QR3512	E-3	Ⓒ
QR3801	B-17	Ⓕ
Integrated Circuit		
IC3501	B-3	Ⓒ
IC3801	B-3	Ⓒ
IC3802	F-4	Ⓕ
Test Point		
TP3501	C-5	Ⓒ
TP3501	C-18	Ⓕ
TP3502	B-5	Ⓒ
TP3502	B-18	Ⓕ
TP3803	B-5	Ⓒ
TP3803	B-18	Ⓕ
TP3804	A-5	Ⓒ
TP3804	A-18	Ⓕ
Adjustment		
VR3805	A-18	Ⓕ
VR3806	A-18	Ⓕ
VR3807	B-18	Ⓕ
VR3808	A-19	Ⓕ
Connector		
P3501	B-1	Ⓒ
P3501	B-22	Ⓕ
P3503	E-4	Ⓒ
P3503	E-19	Ⓕ
P3504	C-1	Ⓒ
P3504	C-22	Ⓕ
P3801	E-2	Ⓒ
P3801	E-21	Ⓕ
P3802	D-1	Ⓒ
P3802	D-22	Ⓕ
P3804	F-2	Ⓒ
P3804	F-4	Ⓕ
P3805	B-6	Ⓒ
P3805	B-17	Ⓕ

ADDRESS INFORMATION
Ⓒ... COMPONENT SIDE
Ⓕ... FOIL SIDE


CCD C.B.A. (VEP03698B)
(COMPONENT SIDE)
(FOIL SIDE)
FE HEAD C.B.A. (VEP00H73B)
TAKE-UP PHOTO C.B.A. (VEK3414)
SUPPLY PHOTO C.B.A. (VEK3415)
MECHANISM CONNECTION C.B.A. (VES0413)
TO MODE SELECT SWITCH
MAIN C.B.A. (VEP06724A)
SUB VIDEO SECTION
HEAD AMP SECTION
SERVO SECTION
SYSTEM
(COMPONENT SIDE)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

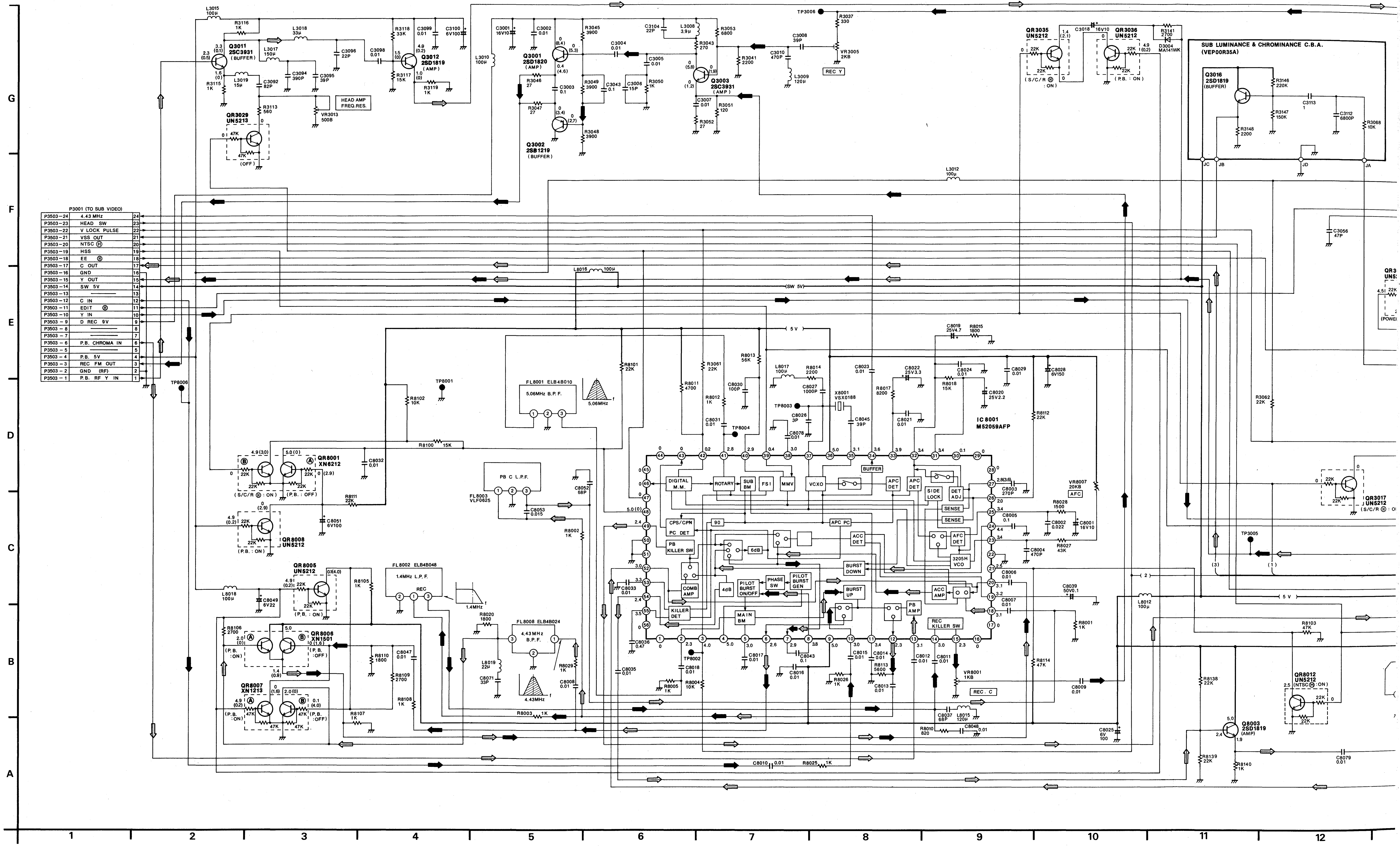

DC JACK C.B.A. (VEP01452A)
MECHANISM CONNECTION C.B.A. (VES0413)
KE-UP PHOTO
.A. (VEK3414)
SUPPLY PHOTO C.B.A. (VEK3415)
TO MODE SELECT SWITCH
J1602 REMOTE
J1601 DC IN 12V
SECTION
POWER SUPPLY SECTION
SERVO SECTION
SYSTEM CONTROL SECTION
TO CHASSIS
5V ADJ
9V ADJ
INDCAT POSI
UNDER CUT
PG SHIFTER (PAL)
PG SHIFTER (NTSC)
(FOIL SIDE)
7
8
9
10
11
12
13
14
15
16
17


POWER SUPPLY SECTION
SERVO SECTION
TO CHASSIS
HEAD AMP SECTION
SUB VIDEO SECTION
SYSTEM CONTROL SECTION
5V ADJ
9V ADJ
INDCAT POSI
UNDER CUT
PG SHIFTER (PAL)
PG SHIFTER (NTSC)
CNR PHASE
YNR BAL
CNR GAIN
YNR GAIN
IC6004
IC6006
IC2006
IC2002
IC5001
(FOIL SIDE)
12
13
14
15
16
17
18
19
20
21
22

Next Page:
LUMINANCE & CHROMINANCE Section

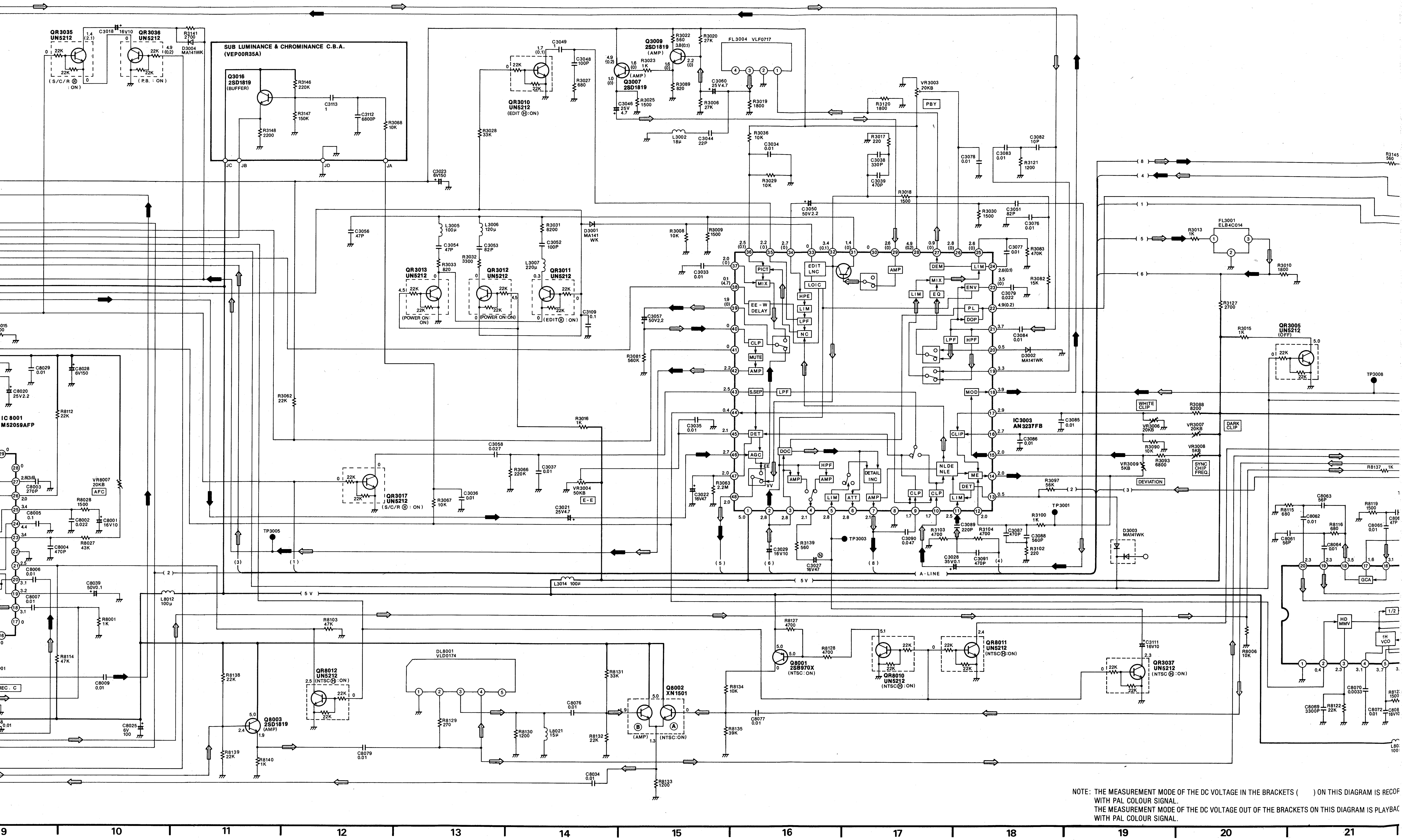
3-14. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE



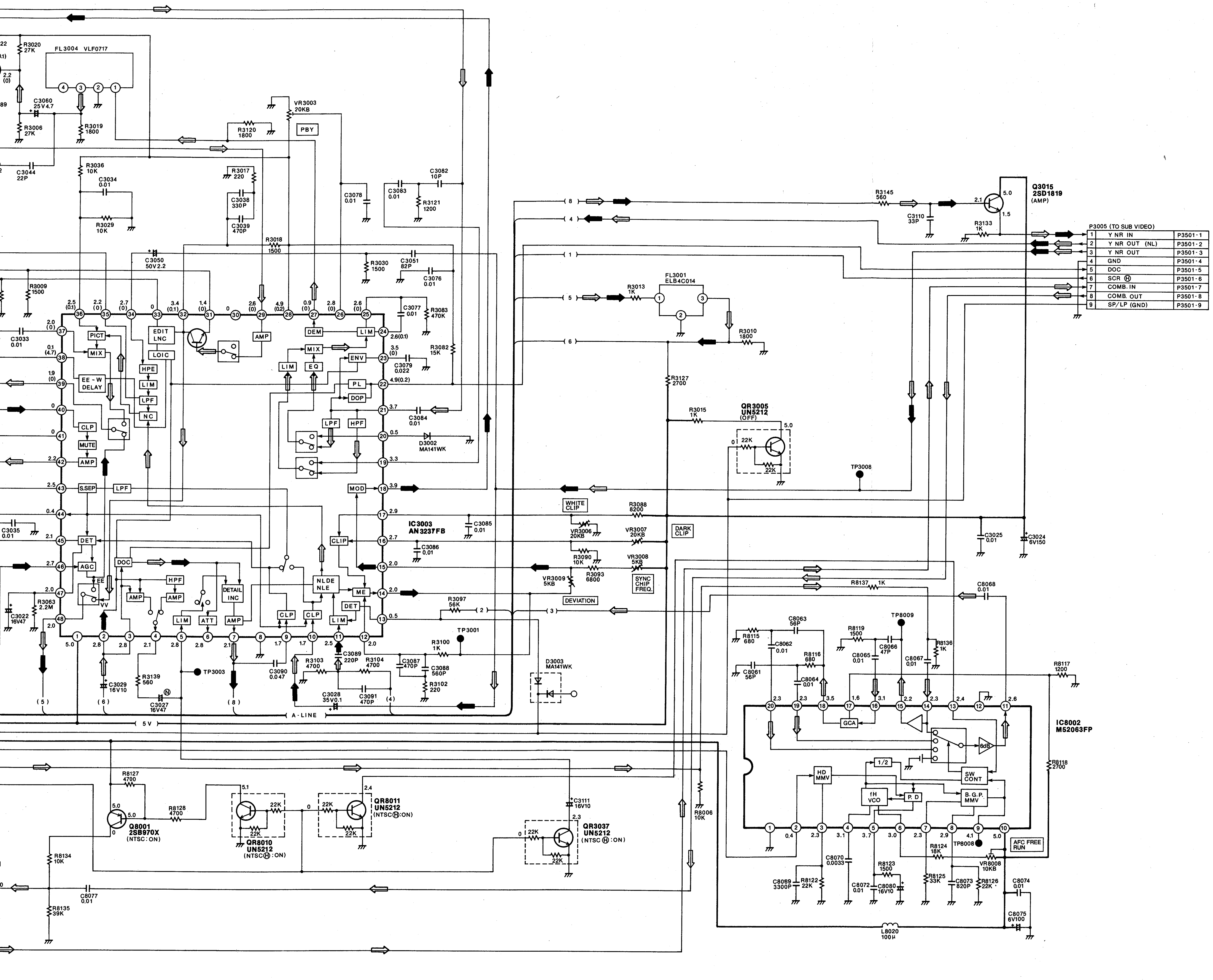
P3001 (TO SUB VIDEO)
P3503-24 4.43 MHz 24
P3503-23 HEAD SW 23
P3503-22 V LOCK PULSE 22
P3503-21 VSS OUT 21
P3503-20 NTSC Ⓗ 20
P3503-19 HSS 19
P3503-18 EE Ⓡ 18
P3503-17 C OUT 17
P3503-16 GND 16
P3503-15 Y OUT 15
P3503-14 SW 5V 14
P3503-13 13
P3503-12 C IN 12
P3503-11 EDIT Ⓗ 11
P3503-10 Y IN 10
P3503-9 D REC 9V 9
P3503-8 8
P3503-7 7
P3503-6 P.B. CHROMA IN 6
P3503-5 5
P3503-4 P.B. 5V 4
P3503-3 REC FM OUT 3
P3503-2 GND (RF) 2
P3503-1 P.B. RF Y IN 1
Q3011 2SC3931 (BUFFER)
Q3012 2SD1819 (AMP)
QR3029 UN5213 (OFF)
HEAD AMP FREQ.RES.
Q3001 2SD1820 (AMP)
Q3002 2SB1219 (BUFFER)
Q3003 2SC3931 (AMP)
REC Y
TP3006
QR3035 UN5212 (S/C/R Ⓗ : ON)
QR3036 UN5212 (P.B. : ON)
D3004 MA141WK
SUB LUMINANCE & CHROMINANCE C.B.A. (VEP00R35A)
Q3016 2SD1819 (BUFFER)
FL8001 ELB4B010 5.06MHz B.P.F.
PB C L.P.F.
FL8003 VLF0625
FL8002 ELB4B048 1.4MHz L.P.F.
FL8008 ELB4B024 4.43MHz B.P.F.
QR8001 XN6212 (S/C/R Ⓗ : ON) (P.B. : OFF)
QR8008 UN5212 (P.B. : ON)
QR8005 UN5212 (P.B. : ON)
QR8006 XN1501 (P.B. : ON) (P.B. : OFF)
QR8007 XN1213 (P.B. : ON) (P.B. : OFF)
IC8001 M52059AFP
X8001 VSX0188
TP8001 TP8002 TP8003 TP8004 TP8006 TP3005
DIGITAL M.M.
ROTARY
SUB BM
FSI
MMV
VCXO
BUFFER
APC DET
SIDE LOCK
DET ADJ
SENSE
CPS/CPN PC DET
PB KILLER SW
APC PC
ACC DET
6dB
BURST DOWN
COMB AMP
4dB
PILOT BURST ON/OFF
PHASE SW
PILOT BURST GEN
BURST UP
KILLER DET
MAIN BM
PB AMP
ACC AMP
AFC DET
3205H VCO
REC KILLER SW
REC. C
AFC
VR8001 1KB
VR8007 20KB
Q8003 2SD1819 (AMP)
QR8012 UN5212 (NTSC Ⓗ : ON)
QR3017 UN5212 (S/C/R Ⓗ : ON)
(SW 5V)
5 V
A B C D E F G
1 2 3 4 5 6 7 8 9 10 11 12

SIGNAL PATH IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE


QR3035 UN5212
QR3036 UN5212
(S/C/R Ⓡ : ON)
(P.B. : ON)
D3004 MA141WK
SUB LUMINANCE & CHROMINANCE C.B.A. (VEP00R35A)
Q3016 2SD1819 (BUFFER)
QR3010 UN5212 (EDIT Ⓡ : ON)
Q3009 2SD1819 (AMP)
Q3007 2SD1819 (AMP)
FL3004 VLF0717
VR3003 20KB
PBY
QR3013 UN5212 (POWER ON: ON)
QR3012 UN5212 (POWER ON: ON)
QR3011 UN5212 (EDIT Ⓡ : ON)
D3001 MA141 WK
IC3003 AN3237FB
PICT
MIX
EE - W DELAY
CLP
MUTE
AMP
S.SEP
DET
AGC
DOC
HPE
LIM
LPF
NC
EDIT LNC
LOIC
DEM
ENV
PL
DOP
HPF
MOD
CLIP
ME
NLDE NLE
DETAIL INC
ATT
EQ
QR3017 UN5212 (S/C/R Ⓡ : ON)
VR3004 50KB
E - E
TP3005
TP3003
TP3001
A - LINE
5 V
FL3001 ELB4C014
QR3005 UN5212 (OFF)
TP3008
WHITE CLIP
VR3006 20KB
VR3007 20KB
DARK CLIP
VR3008 5KB
VR3009 5KB
SYNC CHIP FREQ.
DEVIATION
D3003 MA141WK
IC8001 M52059AFP
VR8007 20KB
AFC
GCA
HD MMV
1H VCO
1/2
DL8001 VLD0174
Q8003 2SD1819 (AMP)
QR8012 UN5212 (NTSC Ⓡ : ON)
Q8002 XN1501 (AMP) (NTSC:ON)
Q8001 2SB970X (NTSC : ON)
QR8010 UN5212 (NTSCⓇ : ON)
QR8011 UN5212 (NTSCⓇ : ON)
QR3037 UN5212 (NTSC Ⓡ : ON)
9
10
11
12
13
14
15
16
17
18
19
20
21

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECO
WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBAC
WITH PAL COLOUR SIGNAL.

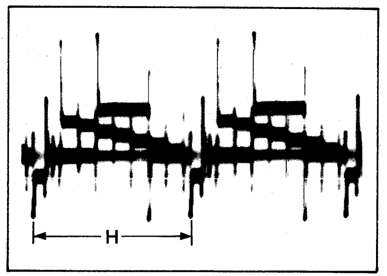
DE


FL3004 VLF0717
VR3003 20KB
PBY
IC3003 AN3237FB
Q3015 2SD1819 (AMP)
P3005 (TO SUB VIDEO)
1 Y NR IN P3501-1
2 Y NR OUT (NL) P3501-2
3 Y NR OUT P3501-3
4 GND P3501-4
5 DOC P3501-5
6 SCR Ⓗ P3501-6
7 COMB. IN P3501-7
8 COMB. OUT P3501-8
9 SP/LP (GND) P3501-9
FL3001 ELB4C014
QR3005 UN5212 (OFF)
TP3008
WHITE CLIP
DARK CLIP
SYNC CHIP FREQ.
DEVIATION
TP3001
TP3003
D3002 MA141WK
D3003 MA141WK
A-LINE
5V
TP8009
IC8002 M52063FP
HD MMV
fH VCO
P. D
1/2
SW CONT
B. G. P. MMV
GCA
AFC FREE RUN
TP8008
L8020 100μ
Q8001 2SB970X (NTSC : ON)
QR8010 UN5212 (NTSCⒽ : ON)
QR8011 UN5212 (NTSCⒽ : ON)
QR3037 UN5212 (NTSC Ⓗ : ON)
PICT
MIX
EDIT LNC
LOIC
HPE
LIM
LPF
NC
EE-W DELAY
CLP
MUTE
AMP
S.SEP
DET
AGC
DOC
HPF
DETAIL INC
ATT
NLDE NLE
ME
DEM
ENV
EQ
PL
DOP
MOD
CLIP
16
17
18
19
20
21
22
23

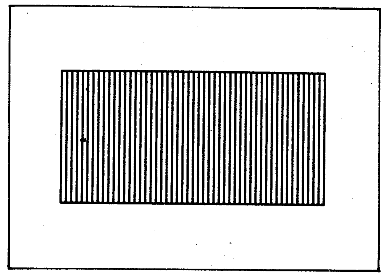
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

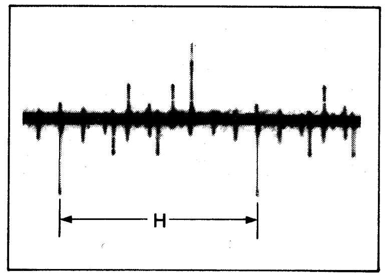
LUMINANCE & CHROMINANCE CIRCUIT TP WAVEFORM



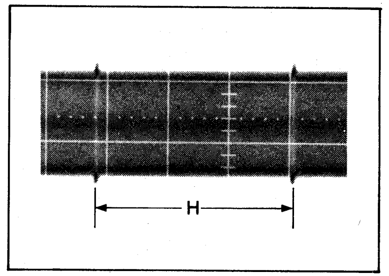
TP3001 REC
0.2V/20μsec. div. 0.8Vp-p



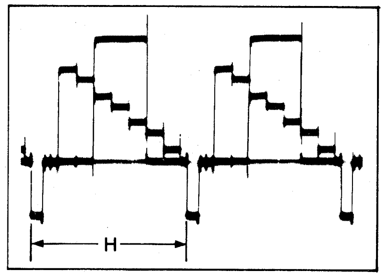
TP8003 REC: 0.66Vp-p
0.1V/20μsec. div. PLAY: 0.54Vp-p



TP3003 REC
0.1V20μsec. div. 0.5Vp-p

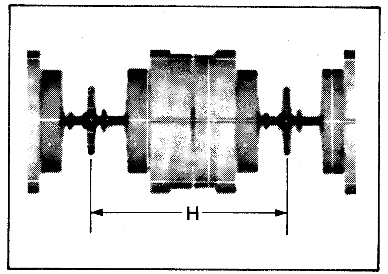


TP8004 REC/PLAY
0.2V/20μsec. div. 1.0Vp-p



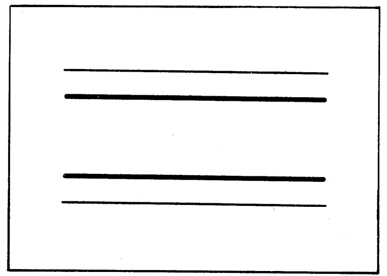
TP3005 REC/PLAY
0.5V/20μsec. div. 2.0Vp-p

TP3008 REC/PLAY
0.2V/20μsec. div. 0.85Vp-p

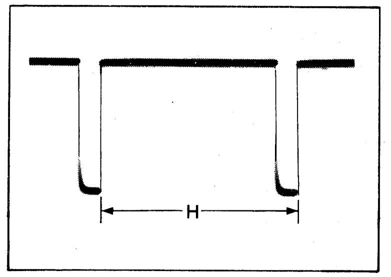


TP8006 REC/PLAY
0.5V/20μsec. div. 1.2Vp-p

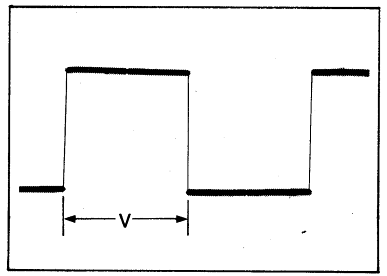
TP8009 REC/PLAY
0.2V/20μsec. div. 0.7Vp-p



TP3006 REC
0.5V/5msec. div. 1.5Vp-p

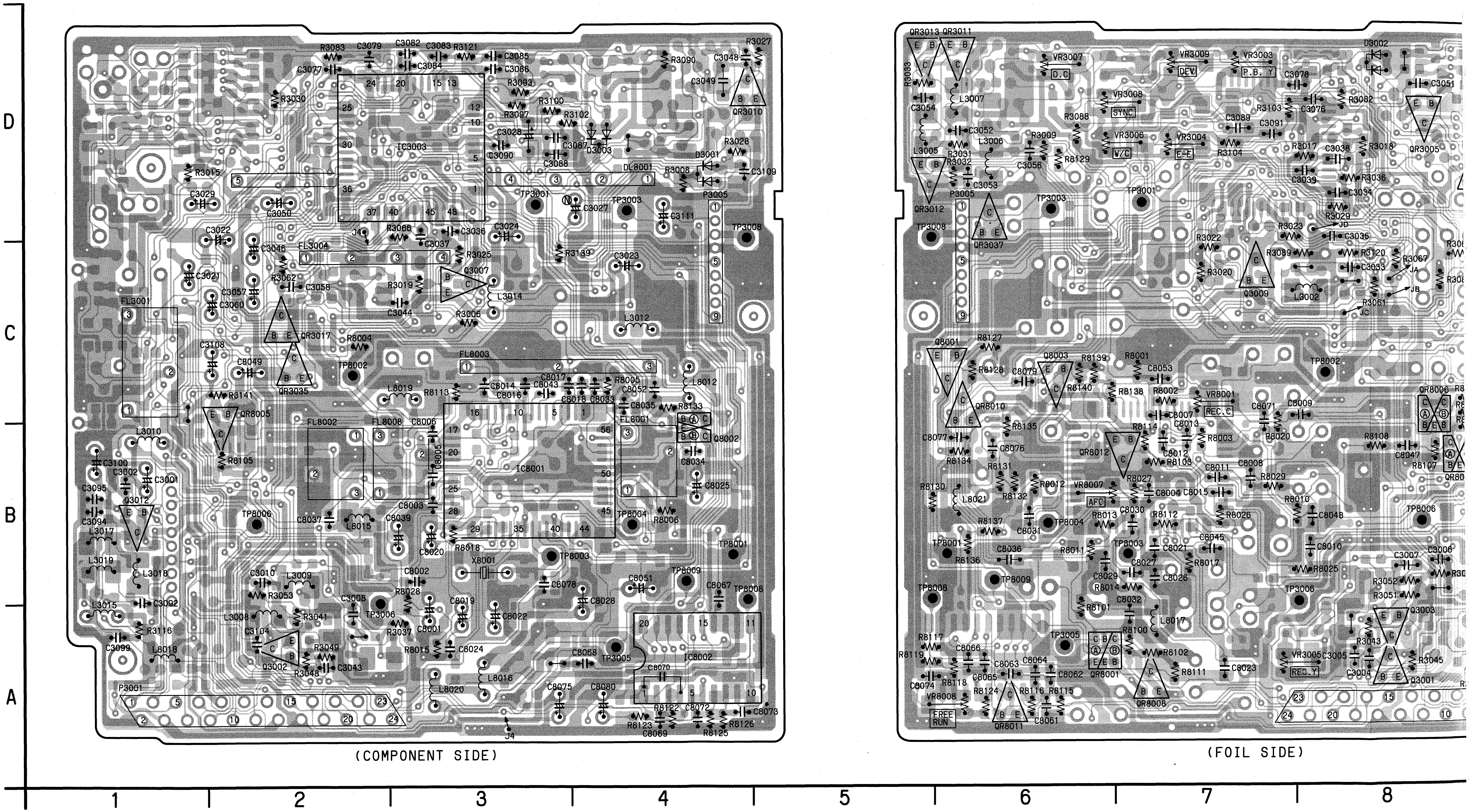


TP8008 REC/PLAY
1.0V/20μsec. div. 4.4Vp-p



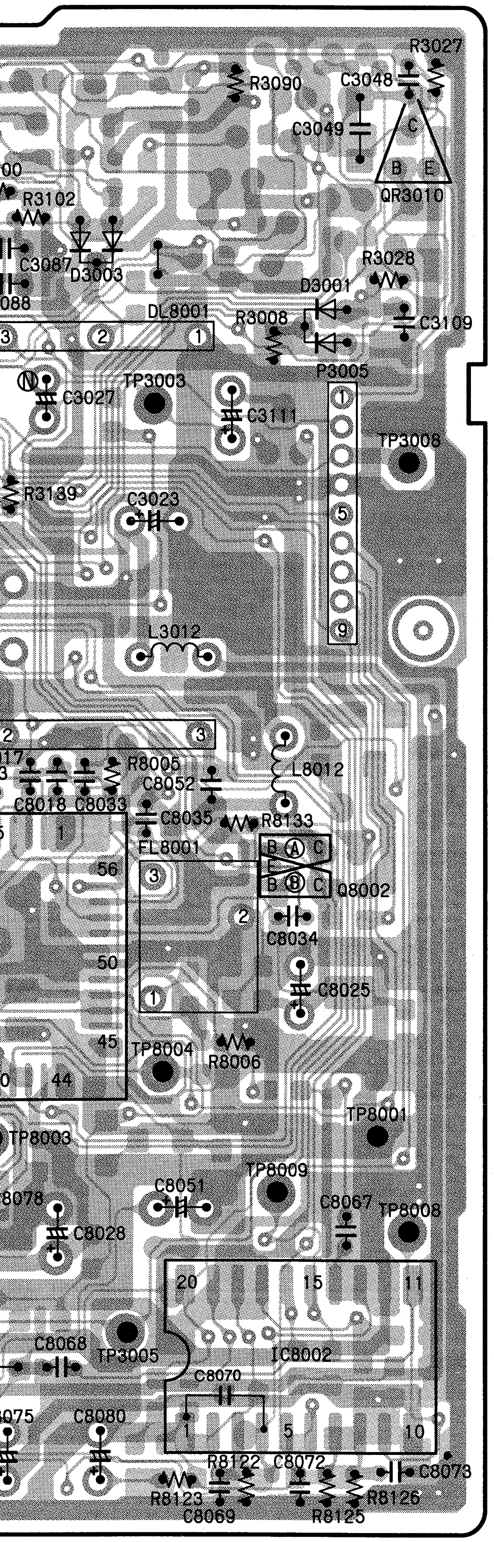
TP8002 REC/PLAY
2.0V/10msec. div. 4.0Vp-p

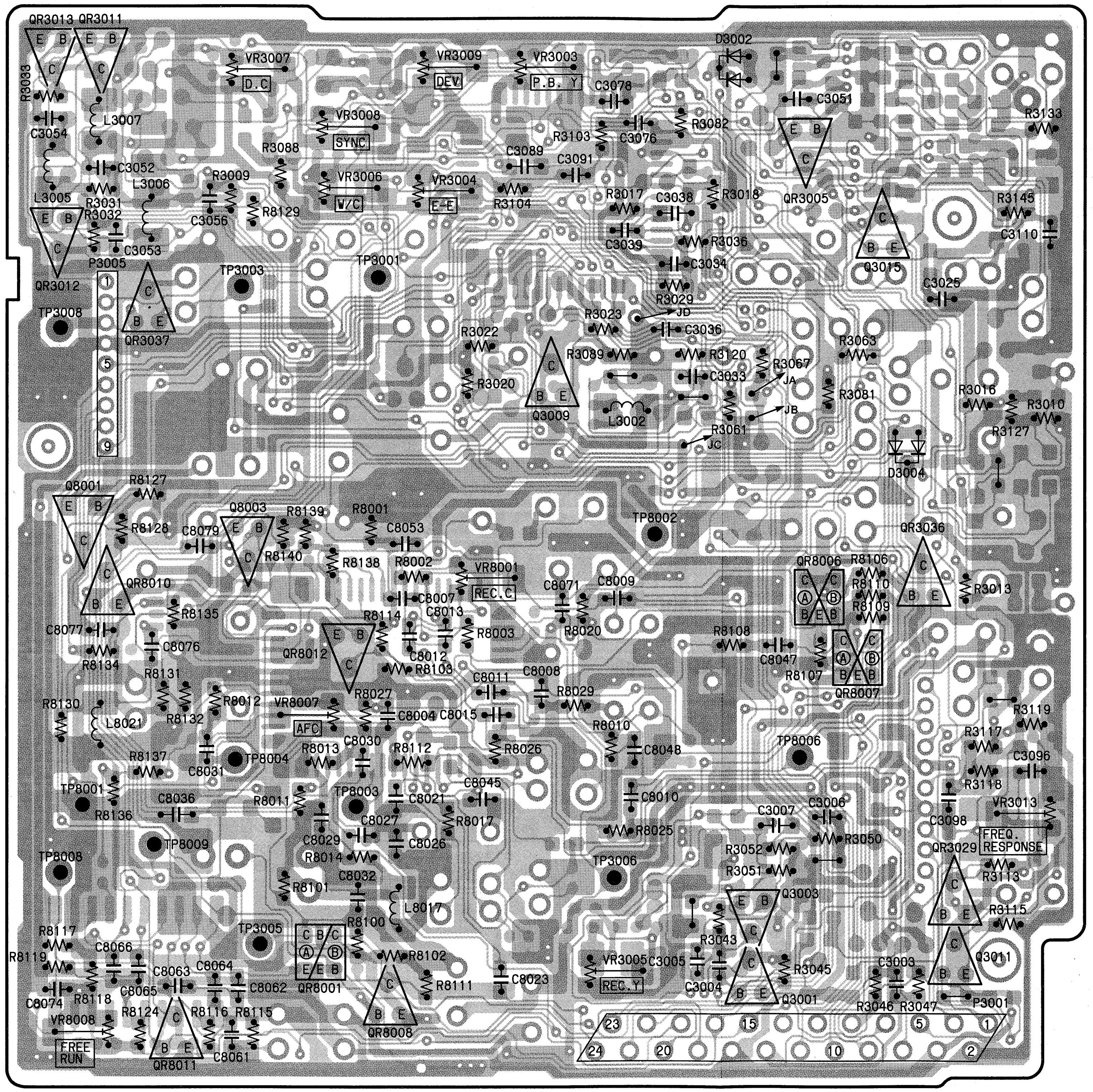
3-15. LUMINANCE & CHROMINANCE C.B.A. (VEP03801A)


D
C
B
A
1
2
3
4
5
6
7
8
IC3003
IC8001
IC8002
FL3001
FL3004
FL8001
FL8002
FL8003
FL8008
DL8001
X8001
P3001
P3005
TP3001
TP3003
TP3005
TP3006
TP3008
TP8001
TP8002
TP8003
TP8004
TP8006
TP8008
TP8009
Q3002
Q3003
Q3007
Q3009
Q3012
Q8001
Q8002
Q8003
QR3005
QR3010
QR3011
QR3012
QR3013
QR3017
QR3035
QR3037
QR8001
QR8005
QR8006
QR8008
QR8010
QR8011
QR8012
VR3003
P.B. Y
VR3004
E-E
VR3005
REC. Y
VR3006
W/C
VR3007
D.C
VR3008
SYNC
VR3009
DEV
VR8001
REC. C
VR8007
AFC
VR8008
FREE RUN
J4

(COMPONENT SIDE)

(FOIL SIDE)

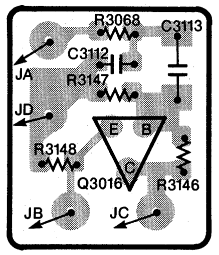

R3027
R3090
C3048
C3049
QR3010
R3102
D3003
C3087
D3001
R3028
R3008
C3109
DL8001
P3005
TP3003
C3027
C3111
TP3008
R3139
C3023
L3012
R8005
C8052
C8018
C8033
C8035
R8133
FL8001
Q8002
C8034
C8025
TP8004
R8006
TP8001
TP8003
TP8009
C8051
C8067
TP8008
C8078
C8028
IC8002
TP3005
C8068
C8070
C8080
R8122
C8072
C8073
R8123
C8069
R8125
R8126


QR3013
QR3011
VR3007
D.C
VR3009
DEV
VR3003
P.B. Y
D3002
C3078
C3051
VR3008
SYNC
VR3006
W/C
VR3004
E-E
R3103
C3076
R3082
QR3005
R3133
L3007
C3054
C3052
L3005
L3006
R3031
R3032
C3053
C3056
R3129
R3104
C3089
C3091
R3017
C3038
R3018
C3039
R3036
C3034
Q3015
R3145
C3110
QR3012
P3005
TP3003
TP3001
TP3008
QR3037
R3029
C3036
R3023
C3025
R3022
R3089
R3120
R3067
R3063
C3033
R3020
Q3009
L3002
R3061
R3081
R3016
R3010
R3127
D3004
Q8001
R8127
R8128
C8079
Q8003
R8139
R8140
R8001
C8053
TP8002
QR3036
QR8010
R8138
R8002
VR8001
REC.C
C8071
C8009
QR8006
R8106
R8110
R8109
R3013
C8077
R8135
R8114
C8007
C8013
R8003
R8020
R8108
C8047
QR8007
R8107
R8134
C8076
QR8012
C8012
R8103
C8011
C8008
R8131
R8132
R8012
VR8007
AFC
R8027
C8004
C8015
R8029
R8010
C8048
R3119
R8130
L8021
R8137
C8031
TP8004
R8013
C8030
R8112
R8026
TP8006
R3117
C3096
R3118
TP8001
R8136
C8036
R8011
TP8003
C8021
C8045
C8010
VR3013
C3007
C3006
C3098
FREQ.
RESPONSE
QR3029
TP8008
TP8009
C8029
C8027
C8026
R8017
R8025
R3052
R3050
R3051
R8014
TP3006
R3113
R8101
C8032
L8017
Q3003
R3115
R3043
R8100
TP3005
R8117
R8119
C8066
C8063
C8064
R8102
C8023
VR3005
C3005
C3004
R3045
C3003
Q3011
C8074
R8118
C8065
C8062
QR8001
R8111
Q3001
R3046
R3047
P3001
VR8008
R8124
R8116
R8115
QR8008
FREE
RUN
QR8011
C8061
23
15
5
1
24
20
10
2

(FOIL SIDE)

4 5 6 7 8 9

SUB LUMINANCE & CHROMINANCE C.B.A. (VEP00R35A)

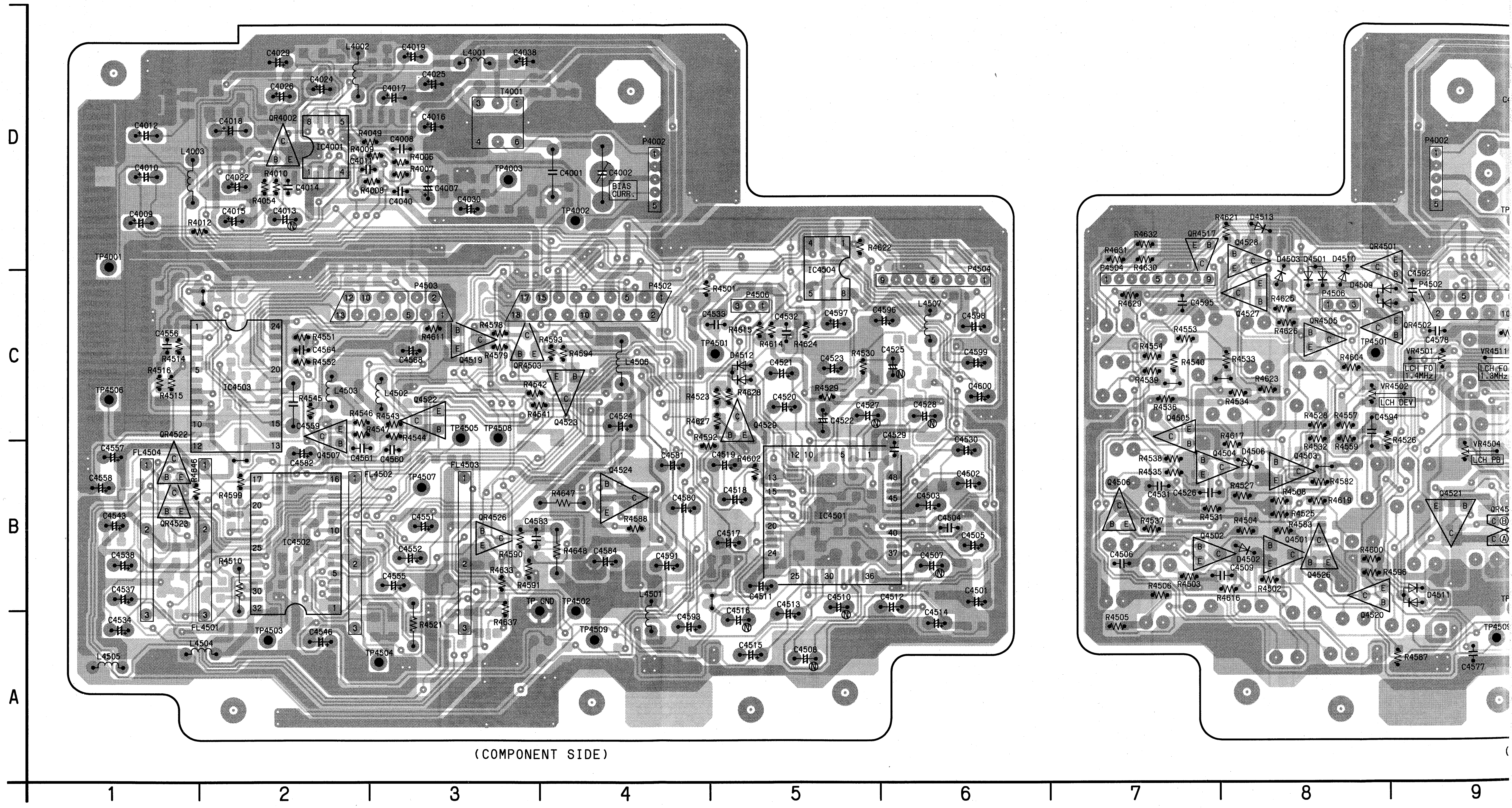

R3068
C3113
C3112
R3147
JA
JD
R3148
Q3016
R3146
JB
JC

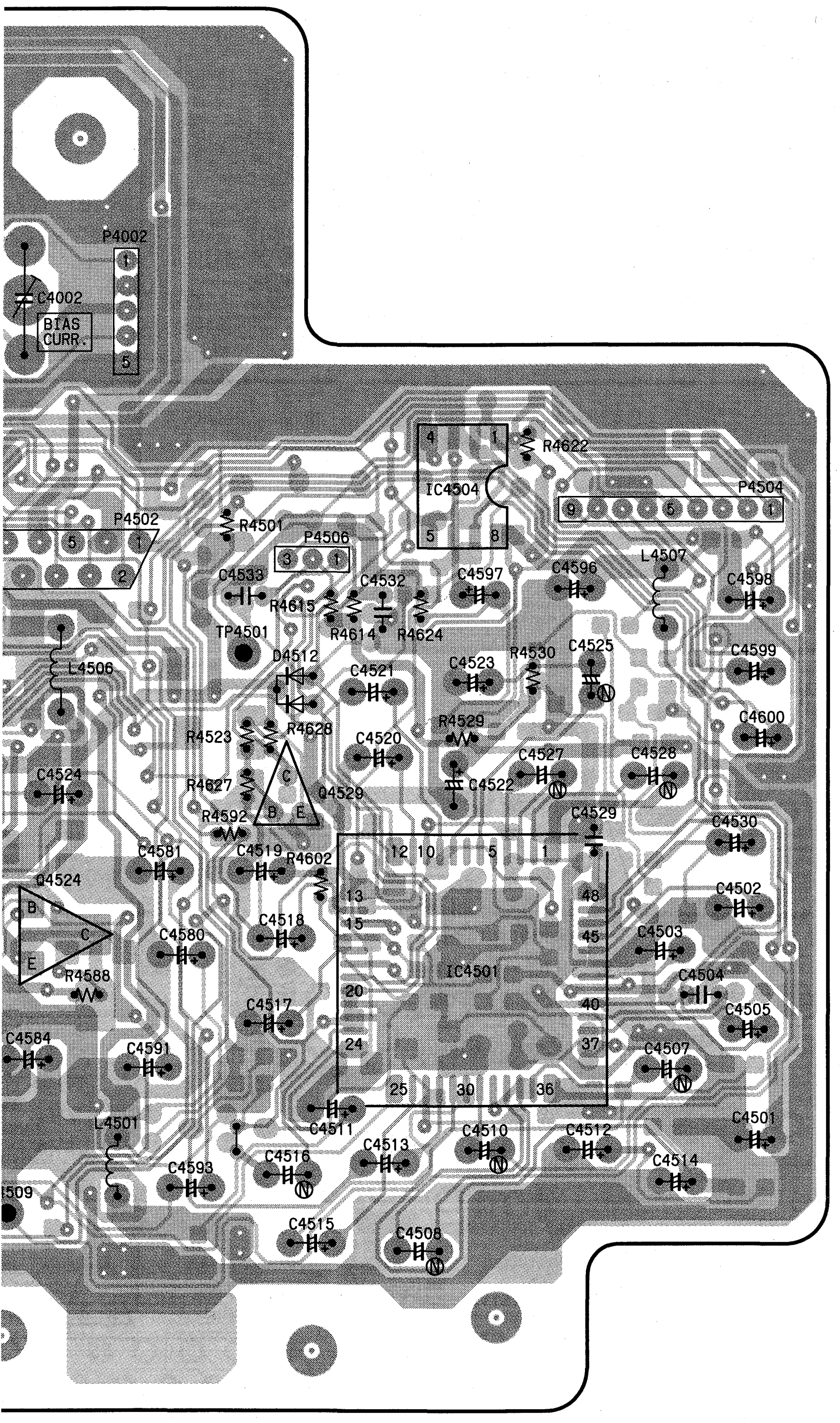
LUMINANCE & CHROMINANCE C.B.A.		
Transistor		
Q3001	A-8	Ⓕ
Q3002	A-2	©
Q3003	A-8	Ⓕ
Q3007	C-3	©
Q3009	C-7	Ⓕ
Q3011	A-9	Ⓕ
Q3012	B-1	©
Q3015	D-8	Ⓕ
Q8001	C-6	Ⓕ
Q8002	B-4	©
Q8003	C-6	Ⓕ
Transistor & Resistor		
QR3005	D-8	Ⓕ
QR3010	D-4	©
QR3011	D-6	Ⓕ
QR3012	D-5	Ⓕ
QR3013	D-5	Ⓕ
QR3017	C-2	©
QR3029	B-9	Ⓕ
QR3035	C-2	©
QR3036	C-9	Ⓕ
QR3037	D-6	Ⓕ
QR8001	A-6	Ⓕ
QR8005	C-2	©
QR8006	C-8	Ⓕ
QR8007	B-8	Ⓕ
QR8008	A-7	Ⓕ
QR8010	C-6	Ⓕ
QR8011	A-6	Ⓕ
QR8012	B-6	Ⓕ
Integrated Circuit		
IC3003	D-3	©
IC8001	B-3	©
IC8002	A-4	©
Test Point		
TP3001	D-3	©
TP3001	D-7	Ⓕ
TP3003	D-4	©
TP3003	D-6	Ⓕ
TP3005	A-4	©
TP3005	A-6	Ⓕ
TP3006	B-2	©
TP3006	B-8	Ⓕ
TP3008	D-4	©
TP3008	D-5	Ⓕ
TP8001	B-4	©
TP8001	B-6	Ⓕ
TP8002	C-2	©
TP8002	C-8	Ⓕ
TP8003	B-3	©
TP8003	B-7	Ⓕ
TP8004	B-4	©
TP8004	B-6	Ⓕ
TP8006	B-2	©
TP8006	B-8	Ⓕ
TP8008	B-4	©
TP8008	B-5	Ⓕ
TP8009	B-4	©
TP8009	B-6	Ⓕ
Adjustment		
VR3003	D-7	Ⓕ
VR3004	D-7	Ⓕ
VR3005	A-8	Ⓕ
VR3006	D-7	Ⓕ
VR3007	D-6	Ⓕ
VR3008	D-7	Ⓕ
VR3009	D-7	Ⓕ
VR3013	B-9	Ⓕ
VR8001	C-7	Ⓕ
VR8007	B-6	Ⓕ
VR8008	A-6	Ⓕ
Connector		
P3001	A-1	©
P3001	A-9	Ⓕ
P3005	D-4	©
P3005	D-6	Ⓕ

ADDRESS INFORMATION
© ... COMPONENT SIDE
Ⓕ ... FOIL SIDE

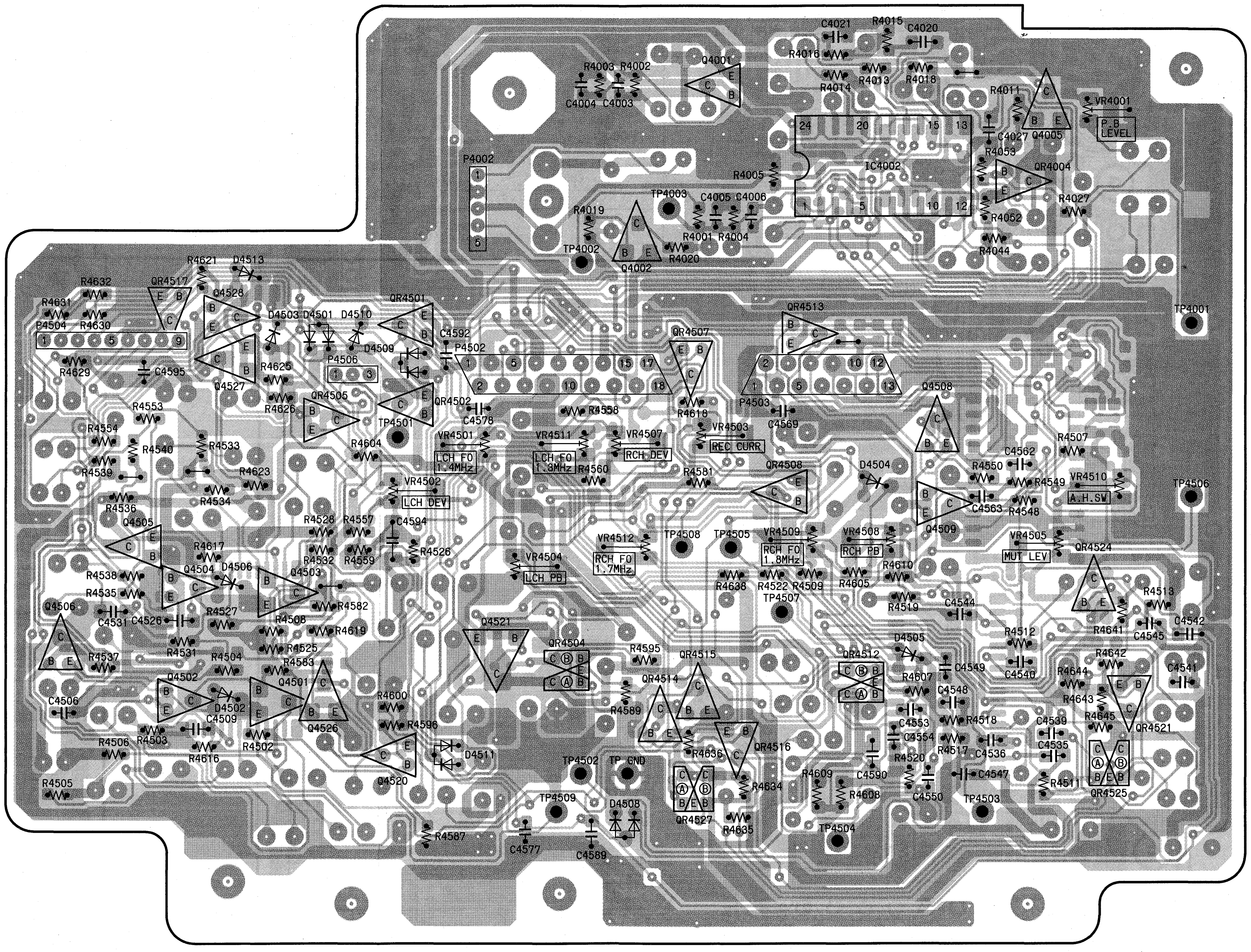
Next Page:
Hi-Fi/NORMAL AUDIO Section

3-16. Hi-Fi/NORMAL AUDIO C.B.A. (VEP04325A)


D
C
B
A
1
2
3
4
5
6
7
8
9
C4029
L4002
C4019
L4001
C4038
C4026
C4024
C4017
C4025
T4001
C4012
C4018
QR4002
IC4001
R4049
C4008
C4016
P4002
L4003
C4010
R4009
C4011
R4006
R4007
TP4003
C4001
C4002
BIAS CURR.
C4022
R4010
C4014
R4008
C4007
R4054
C4040
C4030
C4009
R4012
C4015
C4013
TP4002
TP4001
P4503
P4502
IC4504
R4622
P4504
R4501
P4506
C4533
C4532
C4597
C4596
L4507
C4598
R4615
R4614
R4624
C4556
R4551
C4564
R4552
R4611
R4578
R4579
Q4519
QR4503
R4593
R4594
R4514
IC4503
R4516
R4515
C4568
L4503
L4502
R4545
TP4506
C4559
R4546
R4543
R4547
R4544
Q4522
TP4505
TP4508
R4542
R4541
Q4523
L4506
TP4501
D4512
R4628
C4521
C4523
R4530
C4525
C4599
R4523
C4520
R4529
C4600
C4527
C4528
C4522
C4524
R4627
R4592
Q4529
C4529
C4530
QR4522
C4557
FL4504
R4646
Q4507
C4582
C4561
C4560
FL4503
C4581
C4519
R4602
C4502
C4558
FL4502
TP4507
Q4524
R4599
IC4502
R4647
C4580
C4518
C4503
QR4523
C4543
C4551
QR4526
C4583
R4588
IC4501
C4504
C4505
C4538
R4510
C4552
R4590
R4648
C4584
C4591
C4517
R4633
C4555
R4591
C4507
C4537
R4521
C4501
TP GND
TP4502
L4501
C4511
C4510
C4512
C4534
FL4501
TP4503
C4546
R4637
TP4509
C4593
C4516
C4513
C4514
L4505
L4504
TP4504
C4515
C4508
(COMPONENT SIDE)
R4621
D4513
R4632
QR4517
Q4528
QR4501
R4631
R4630
D4503
D4501
D4510
C4592
D4509
R4629
C4595
R4625
P4506
Q4527
QR4505
R4626
QR4502
C4578
R4553
R4554
R4540
R4533
R4604
VR4501
LCH FO 1.4MHz
VR4511
LCH FO 1.3MHz
R4539
R4623
VR4502
LCH DEV
R4536
R4534
R4528
R4557
C4594
Q4505
R4617
R4532
R4559
R4526
VR4504
LCH PB
R4538
Q4504
D4506
Q4503
R4535
R4582
Q4506
C4531
C4526
R4527
R4508
R4619
Q4521
R4531
R4525
R4537
R4504
R4583
Q4502
Q4501
C4506
D4502
R4600
C4509
R4596
Q4526
R4506
R4503
R4502
R4616
D4511
Q4520
R4505
R4587
C4577
TP4509


P4002
C4002
BIAS CURR.
P4502
P4506
P4504
IC4504
R4622
R4501
C4533
R4615
R4614
C4532
R4624
C4597
C4596
L4507
C4598
TP4501
D4512
L4506
C4521
C4523
R4530
C4525
C4599
R4628
R4523
C4520
R4529
C4527
C4528
C4600
C4524
R4627
Q4529
C4522
R4592
C4529
C4530
C4581
C4519
R4602
IC4501
C4502
Q4524
C4518
C4503
C4580
R4588
C4504
C4517
C4505
C4584
C4591
C4507
L4501
C4511
C4510
C4512
C4501
C4593
C4516
C4513
C4514
C4515
C4508

E)


C4021
R4015
C4020
R4016
R4003
R4002
Q4001
R4014
R4013
R4018
R4011
VR4001
P.B LEVEL
C4004
C4003
C4027
Q4005
IC4002
R4053
QR4004
P4002
R4005
TP4003
C4005
C4006
R4019
R4027
R4052
R4001
R4004
TP4002
R4020
R4044
Q4002
R4621
D4513
R4632
QR4517
Q4528
QR4501
R4631
P4504
R4630
D4503
D4501
D4510
C4592
QR4513
QR4507
P4502
D4509
R4629
C4595
P4506
Q4527
R4625
R4626
QR4505
QR4502
R4553
R4558
R4616
P4503
VR4503
C4569
R4554
R4540
R4533
TP4501
VR4501
VR4511
VR4507
QR4508
C4578
REC CURR
R4604
LCH FO 1.4MHz
LCH FO 1.3MHz
R4560
RCH DEV
R4539
R4623
R4534
VR4502
LCH DEV
R4581
QR4508
D4504
R4550
C4562
R4507
R4549
VR4510
A.H.SW
R4536
Q4505
R4528
R4557
C4594
R4526
C4563
R4548
R4617
R4532
R4559
VR4512
TP4508
TP4505
VR4509
VR4508
Q4509
VR4505
MUT LEV
QR4524
Q4504
D4506
Q4503
VR4504
RCH FO 1.7MHz
RCH FO 1.8MHz
RCH PB
R4610
R4538
LCH PB
R4638
R4522
R4609
R4605
R4535
R4582
TP4507
R4519
C4544
R4513
Q4506
C4531
C4526
R4527
R4508
R4619
Q4521
QR4504
R4595
QR4515
D4505
R4512
R4641
C4542
C4545
R4531
R4525
R4537
R4504
R4583
Q4502
Q4501
QR4512
R4607
C4549
C4540
R4642
R4644
C4541
QR4514
R4589
C4548
R4643
D4502
C4506
C4509
R4600
Q4526
R4596
C4553
R4518
C4539
R4645
QR4521
R4506
R4503
R4502
C4554
R4636
QR4516
R4517
C4536
C4535
R4616
D4511
R4520
C4547
Q4520
TP4502
TP GND
R4634
R4609
C4590
R4608
R4511
QR4525
R4505
TP4509
D4508
QR4527
R4635
C4550
TP4503
TP4504
R4587
C4577
C4589
TP4001
TP4506

(FOIL SIDE)

4 5 6 7 8 9 10 11 12

Hi-Fi/NORMAL AUDIO C.B.A.

Transistor

Q4001	D-10 Ⓕ
Q4002	D-9 Ⓕ
Q4005	D-11 Ⓕ
Q4501	B-8 Ⓕ
Q4502	B-7 Ⓕ
Q4503	B-8 Ⓕ
Q4504	B-7 Ⓕ
Q4505	C-7 Ⓕ
Q4506	B-7 Ⓕ
Q4507	B-2 ©
Q4508	C-11 Ⓕ
Q4509	C-11 Ⓕ
Q4519	C-3 ©
Q4520	B-8 Ⓕ
Q4521	B-9 Ⓕ
Q4522	C-3 ©
Q4523	C-4 ©
Q4524	B-4 ©
Q4526	B-8 Ⓕ
Q4527	C-8 Ⓕ
Q4528	D-8 Ⓕ
Q4529	C-5 ©

Transistor & Resistor

QR4002	D-2 ©
QR4004	D-11 Ⓕ
QR4501	D-8 Ⓕ
QR4502	C-9 Ⓕ
QR4503	C-3 ©
QR4504	B-9 Ⓕ
QR4505	C-8 Ⓕ
QR4507	C-10 Ⓕ
QR4508	C-10 Ⓕ
QR4512	B-10 Ⓕ
QR4513	D-10 Ⓕ
QR4514	B-10 Ⓕ
QR4515	B-10 Ⓕ
QR4516	B-10 Ⓕ
QR4517	D-7 Ⓕ
QR4521	B-12 Ⓕ
QR4522	C-1 ©
QR4523	B-1 ©
QR4524	B-12 Ⓕ
QR4525	A-12 Ⓕ
QR4526	B-3 ©
QR4527	A-10 Ⓕ

Integrated Circuit

IC4001	D-2 ©
IC4002	D-11 Ⓕ
IC4501	B-5 ©
IC4502	B-2 ©
IC4503	C-2 ©
IC4504	C-5 ©

Test Point

TP4001	C-1 ©
TP4001	D-12 Ⓕ
TP4002	D-4 ©
TP4002	D-9 Ⓕ
TP4003	D-3 ©
TP4003	D-10 Ⓕ
TP4501	C-5 ©
TP4501	C-8 Ⓕ
TP4502	B-4 ©
TP4502	B-9 Ⓕ
TP4503	A-2 ©
TP4503	A-11 Ⓕ
TP4504	A-3 ©
TP4504	A-10 Ⓕ
TP4505	C-3 ©
TP4505	C-10 Ⓕ
TP4506	C-1 ©
TP4506	C-12 Ⓕ
TP4507	B-3 ©
TP4507	B-10 Ⓕ
TP4508	C-3 ©
TP4508	C-10 Ⓕ
TP4509	A-4 ©
TP4509	A-9 Ⓕ
TP GND	B-3 ©
TP GND	B-9 Ⓕ

Adjustment

C4002	D-4 ©
VR4001	D-12 Ⓕ
VR4501	C-9 Ⓕ
VR4502	C-8 Ⓕ
VR4503	C-10 Ⓕ
VR4504	B-9 Ⓕ
VR4505	C-11 Ⓕ
VR4507	C-9 Ⓕ
VR4508	C-10 Ⓕ
VR4509	C-10 Ⓕ
VR4510	C-12 Ⓕ
VR4511	C-9 Ⓕ
VR4512	C-9 Ⓕ

Connector

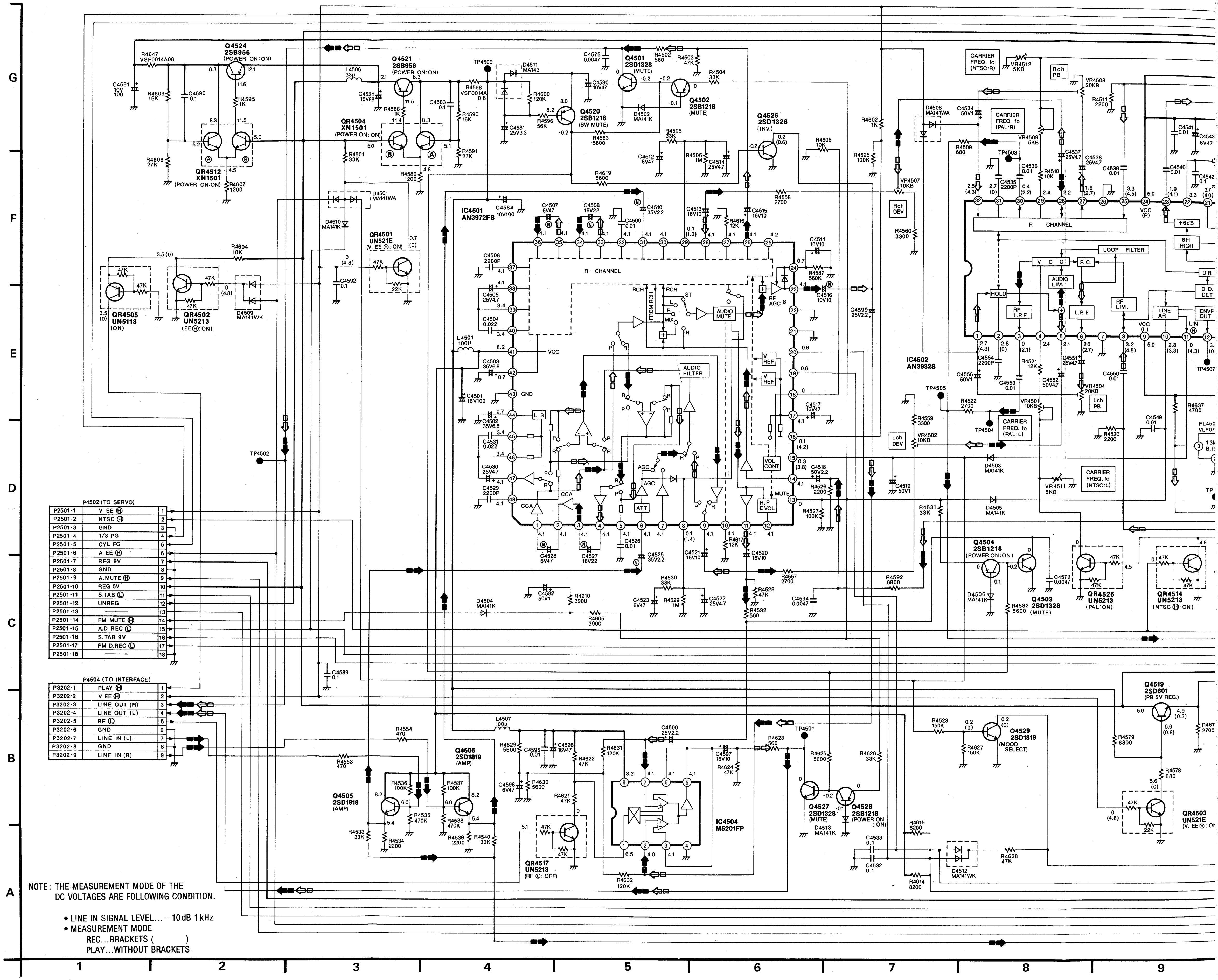
P4002	D-4 ©
P4002	D-9 Ⓕ
P4502	C-4 ©
P4502	C-9 Ⓕ
P4503	C-3 ©
P4503	C-10 Ⓕ
P4504	C-6 ©
P4504	C-7 Ⓕ
P4506	C-5 ©
P4506	C-8 Ⓕ

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

3-17. Hi-Fi/NORMAL AUDIO SCHEMATIC DIAGRAM

◀■ MAIN SIGNAL PATH IN REC MODE

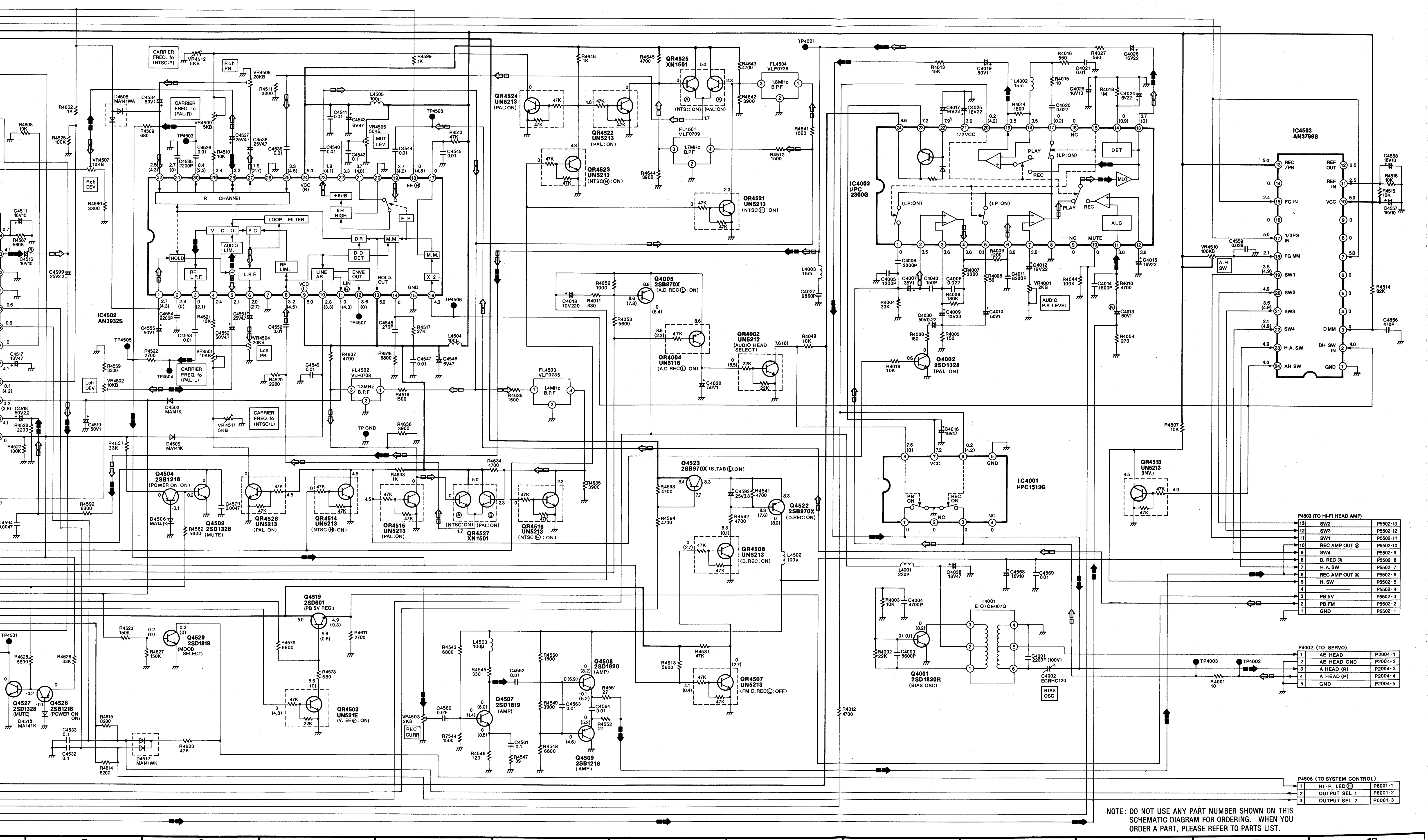
◁□ MAIN SIGNAL PATH IN PLA


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
P4502 (TO SERVO)
P2501-1 V EE Ⓗ 1
P2501-2 NTSC Ⓗ 2
P2501-3 GND 3
P2501-4 1/3 PG 4
P2501-5 CYL FG 5
P2501-6 A EE Ⓗ 6
P2501-7 REG 9V 7
P2501-8 GND 8
P2501-9 A.MUTE Ⓗ 9
P2501-10 REG 5V 10
P2501-11 S.TAB Ⓛ 11
P2501-12 UNREG 12
P2501-13 13
P2501-14 FM MUTE Ⓗ 14
P2501-15 A.D. REC Ⓛ 15
P2501-16 S.TAB 9V 16
P2501-17 FM D.REC Ⓛ 17
P2501-18 18
P4504 (TO INTERFACE)
P3202-1 PLAY Ⓗ 1
P3202-2 V EE Ⓗ 2
P3202-3 LINE OUT (R) 3
P3202-4 LINE OUT (L) 4
P3202-5 RF Ⓛ 5
P3202-6 GND 6
P3202-7 LINE IN (L) 7
P3202-8 GND 8
P3202-9 LINE IN (R) 9
Q4524 2SB956 (POWER ON:ON)
QR4512 XN1501 (POWER ON:ON)
Q4521 2SB956 (POWER ON:ON)
QR4504 XN1501 (POWER ON:ON)
Q4501 2SD1328 (MUTE)
Q4502 2SB1218 (MUTE)
Q4520 2SB1218 (SW MUTE)
Q4526 2SD1328 (INV.)
QR4501 UN521E (V. EE Ⓗ: ON)
QR4505 UN5113 (ON)
QR4502 UN5213 (EE Ⓗ: ON)
IC4501 AN3972FB
R · CHANNEL
AUDIO FILTER
AUDIO MUTE
FROM RCH
RF AGC
VOL CONT
H. P E VOL
V REF
ATT
AGC
CCA
L.S
VCC
GND
MIX
ST
MUTE
TP4509
TP4502
TP4501
TP4503
TP4504
TP4505
TP4507
IC4502 AN3932S
R CHANNEL
CARRIER FREQ. fo (NTSC:R)
CARRIER FREQ. fo (PAL:R)
CARRIER FREQ. fo (PAL:L)
CARRIER FREQ. fo (NTSC:L)
Rch PB
Lch PB
Rch DEV
Lch DEV
LOOP FILTER
V C O
P.C.
HOLD
RF L.P.F.
L.P.F
RF LIM.
AUDIO LIM.
LINE AR
ENVE OUT
D.D. DET
+6dB
6H HIGH
Q4504 2SB1218 (POWER ON:ON)
Q4503 2SD1328 (MUTE)
QR4526 UN5213 (PAL:ON)
QR4514 UN5213 (NTSC Ⓗ:ON)
Q4519 2SD601 (PB 5V REG.)
Q4529 2SD1819 (MODE SELECT)
QR4503 UN521E (V. EE Ⓗ: ON)
Q4506 2SD1819 (AMP)
Q4505 2SD1819 (AMP)
QR4517 UN5213 (RF Ⓛ: OFF)
IC4504 M5201FP
Q4527 2SD1328 (MUTE)
Q4528 2SB1218 (POWER ON : ON)

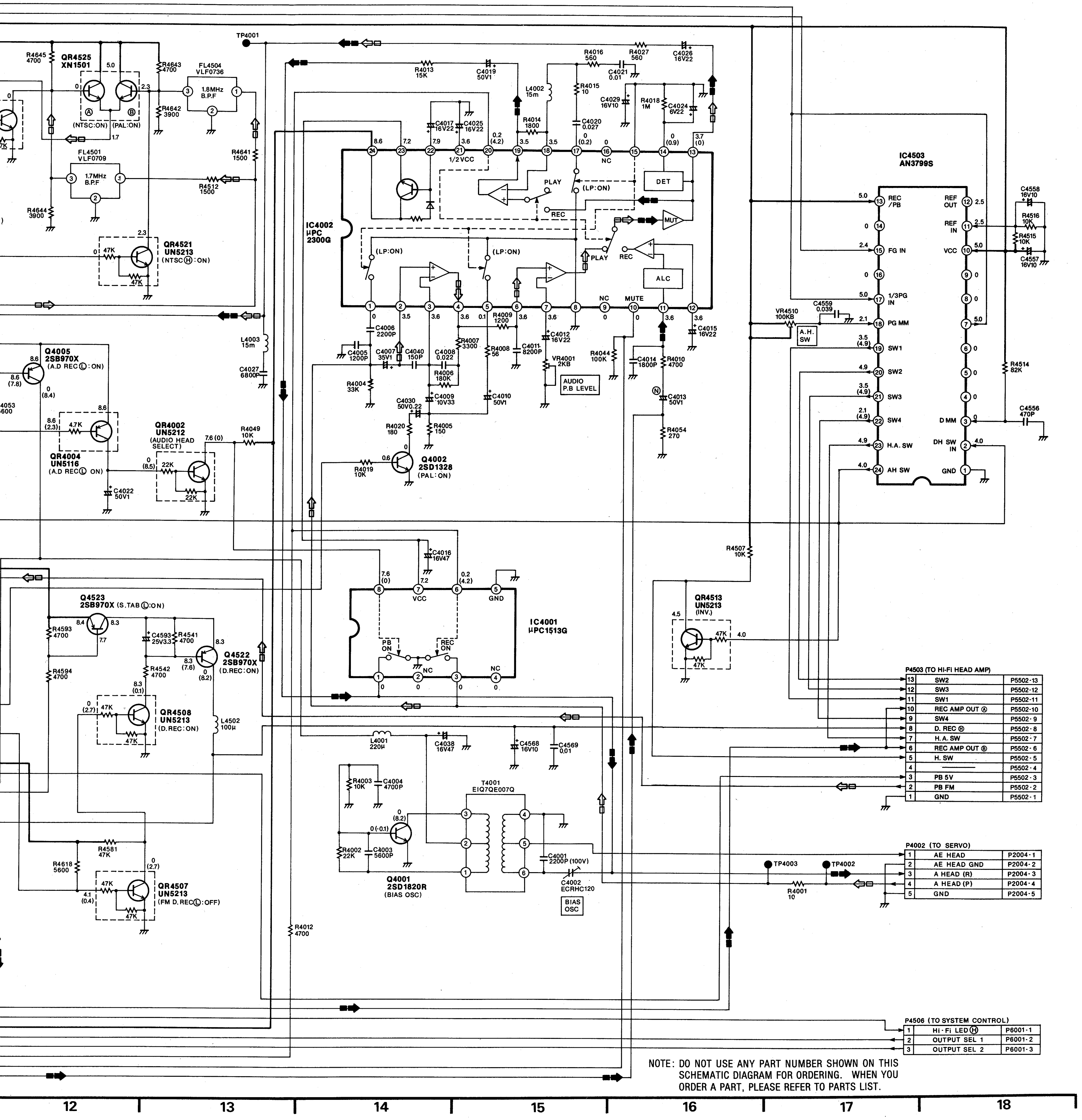
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.

- LINE IN SIGNAL LEVEL... −10 dB 1 kHz
- MEASUREMENT MODE
  REC... BRACKETS ( )
  PLAY... WITHOUT BRACKETS

N REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK

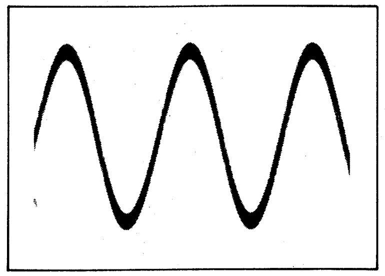

IC4502 AN3932S
R CHANNEL
LOOP FILTER
V C O
P.C.
AUDIO LIM.
HOLD
RF L.P.F.
L.P.F.
RF LIM.
LINE AR
ENVE OUT
HOLD OUT
D.D. DET
D R
M.M.
F. F.
X 2
+6dB
6H HIGH
MUT LEV.
CARRIER FREQ. fo (NTSC:R)
CARRIER FREQ. fo (PAL:R)
CARRIER FREQ. fo (PAL:L)
CARRIER FREQ. fo (NTSC:L)
Rch PB
Rch DEV
Lch PB
Lch DEV
FL4502 VLF0708 1.3MHz B.P.F
FL4503 VLF0735 1.4MHz B.P.F
FL4504 VLF0736 1.8MHz B.P.F
FL4501 VLF0709 1.7MHz B.P.F
QR4524 UN5213 (PAL:ON)
QR4522 UN5213 (PAL:ON)
QR4523 UN5213 (NTSCⒽ:ON)
QR4525 XN1501 (NTSC:ON) (PAL:ON)
QR4521 UN5213 (NTSCⒽ:ON)
Q4005 2SB970X (A.D RECⓁ:ON)
QR4004 UN5116 (A.D RECⓁ ON)
QR4002 UN5212 (AUDIO HEAD SELECT)
Q4504 2SB1218 (POWER ON:ON)
Q4503 2SD1328 (MUTE)
QR4526 UN5213 (PAL:ON)
QR4514 UN5213 (NTSC Ⓗ:ON)
QR4515 UN5213 (PAL:ON)
QR4527 XN1501 (NTSC:ON) (PAL:ON)
QR4516 UN5213 (NTSC Ⓗ : ON)
Q4523 2SB970X (S.TAB Ⓛ:ON)
Q4522 2SB970X (D.REC:ON)
QR4508 UN5213 (D.REC:ON)
QR4507 UN5213 (FM D.RECⓁ:OFF)
Q4519 2SD601 (PB 5V REG.)
Q4529 2SD1819 (MOOD SELECT)
QR4503 UN521E (V. EEⒽ:ON)
Q4507 2SD1819 (AMP)
Q4508 2SD1820 (AMP)
Q4509 2SB1218 (AMP)
Q4527 2SD1328 (MUTE)
Q4528 2SB1218 (POWER ON :ON)
D4508 MA141WA
D4503 MA141K
D4505 MA141K
D4506 MA141K
D4513 MA141K
D4512 MA141WK
REC CURR
IC4002 μPC 2300G
PLAY
REC
(LP:ON)
DET
MUT
ALC
1/2VCC
NC
MUTE
AUDIO P.B LEVEL
Q4002 2SD1328 (PAL:ON)
IC4001 μPC1513G
VCC
GND
PB ON
REC ON
IC4503 AN3799S
REC /PB
FG IN
1/3PG IN
PG MM
SW1
SW2
SW3
SW4
H.A. SW
AH SW
REF OUT
REF IN
VCC
DMM
DH SW IN
GND
A.H. SW
QR4513 UN5213 (INV.)
T4001 EIQ7QE007Q
Q4001 2SD1820R (BIAS OSC)
C4002 ECRHC120
BIAS OSC
TP4001
TP4003
TP4002
TP4501
TP4503
TP4504
TP4505
TP4506
TP4507
TP4508
TP GND
P4503 (TO HI-FI HEAD AMP)
13 SW2 P5502·13
12 SW3 P5502·12
11 SW1 P5502·11
10 REC AMP OUT Ⓐ P5502·10
9 SW4 P5502·9
8 D. REC Ⓑ P5502·8
7 H.A. SW P5502·7
6 REC AMP OUT Ⓑ P5502·6
5 H. SW P5502·5
4 —— P5502·4
3 PB 5V P5502·3
2 PB FM P5502·2
1 GND P5502·1
P4002 (TO SERVO)
1 AE HEAD P2004·1
2 AE HEAD GND P2004·2
3 A HEAD (R) P2004·3
4 A HEAD (P) P2004·4
5 GND P2004·5
P4506 (TO SYSTEM CONTROL)
1 Hi-Fi LEDⒽ P6001·1
2 OUTPUT SEL 1 P6001·2
3 OUTPUT SEL 2 P6001·3
7
8
9
10
11
12
13
14
15
16
17
18

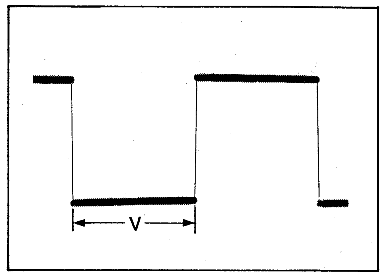
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


TP4001
QR4525
XN1501
FL4504
VLF0736
1.8MHz
B.P.F
(NTSC:ON)
(PAL:ON)
FL4501
VLF0709
1.7MHz
B.P.F
QR4521
UN5213
(NTSC Ⓗ:ON)
IC4002
μPC
2300G
1/2VCC
PLAY
REC
(LP:ON)
DET
MUT
ALC
NC
MUTE
AUDIO
P.B LEVEL
Q4005
2SB970X
(A.D REC Ⓛ:ON)
QR4004
UN5116
(A.D REC Ⓛ ON)
QR4002
UN5212
(AUDIO HEAD SELECT)
Q4002
2SD1328
(PAL:ON)
IC4503
AN3799S
REC /PB
FG IN
1/3PG IN
PG MM
SW1
SW2
SW3
SW4
H.A. SW
AH SW
REF OUT
REF IN
VCC
DMM
DH SW IN
GND
A.H. SW
IC4001
μPC1513G
VCC
GND
PB ON
REC ON
Q4523
2SB970X (S.TAB Ⓛ:ON)
Q4522
2SB970X
(D.REC:ON)
QR4508
UN5213
(D.REC:ON)
QR4513
UN5213
(INV.)
QR4507
UN5213
(FM D.REC Ⓛ:OFF)
T4001
EIQ7QE007Q
Q4001
2SD1820R
(BIAS OSC)
BIAS OSC
TP4003
TP4002
P4503 (TO HI-FI HEAD AMP)
13 SW2 P5502-13
12 SW3 P5502-12
11 SW1 P5502-11
10 REC AMP OUT Ⓐ P5502-10
9 SW4 P5502-9
8 D. REC Ⓗ P5502-8
7 H. A. SW P5502-7
6 REC AMP OUT Ⓑ P5502-6
5 H. SW P5502-5
4 ——— P5502-4
3 PB 5V P5502-3
2 PB FM P5502-2
1 GND P5502-1
P4002 (TO SERVO)
1 AE HEAD P2004-1
2 AE HEAD GND P2004-2
3 A HEAD (R) P2004-3
4 A HEAD (P) P2004-4
5 GND P2004-5
P4506 (TO SYSTEM CONTROL)
1 HI-FI LED Ⓗ P6001-1
2 OUTPUT SEL 1 P6001-2
3 OUTPUT SEL 2 P6001-3
12
13
14
15
16
17
18

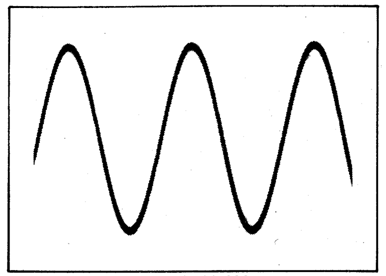
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

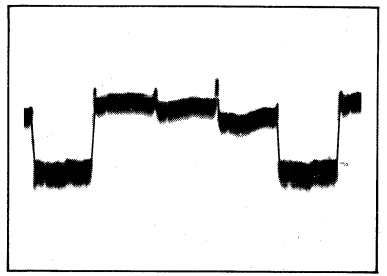
Hi-Fi/NORMAL AUDIO CIRCUIT TP WAVEFORM

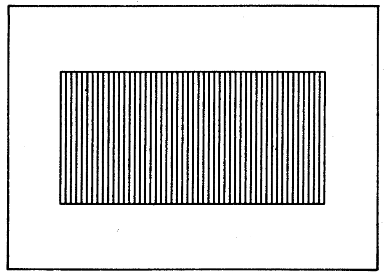

TP4001 REC/PLAY
0.2V/0.5msec. div. 0.6Vp-p

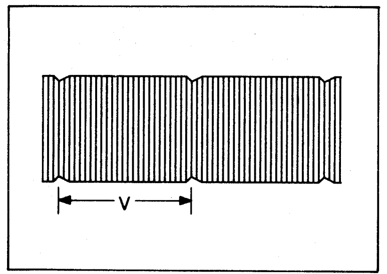


TP4506 REC/PLAY
0.2V10msec. div. 4.0Vp-p

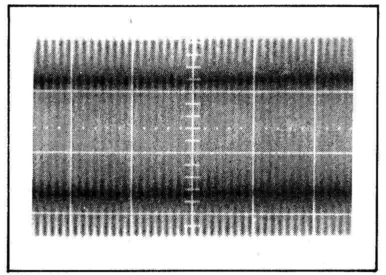

TP4501, TP4502 REC/PLAY
0.2V/0.5msec. div. 0.6Vp-p


TP4507 PLAY
50mV/20msec. div. 0.2Vp-p


TP4503, TP4504 REC
0.1V/20μsec. div. 0.48Vp-p

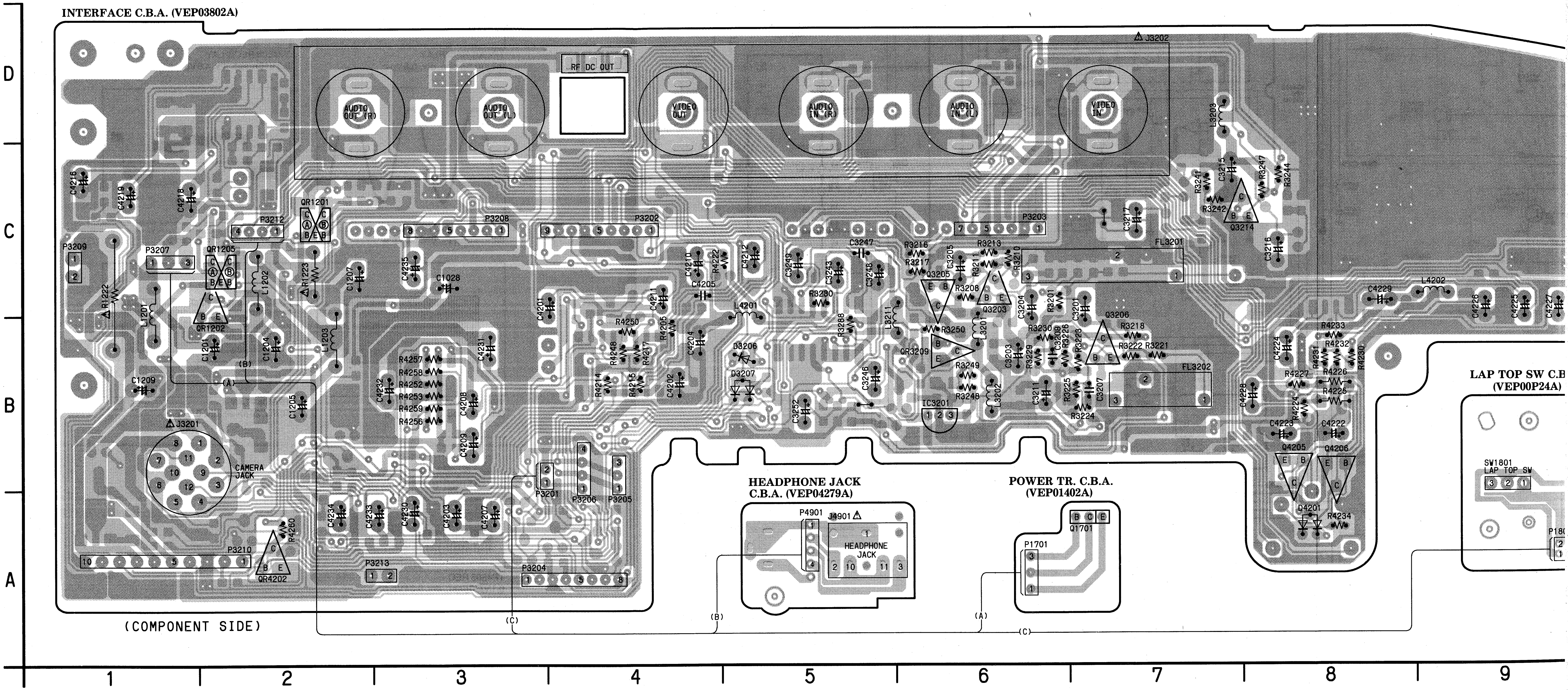


TP4508 PLAY
50mV/20msec. div. 0.2Vp-p

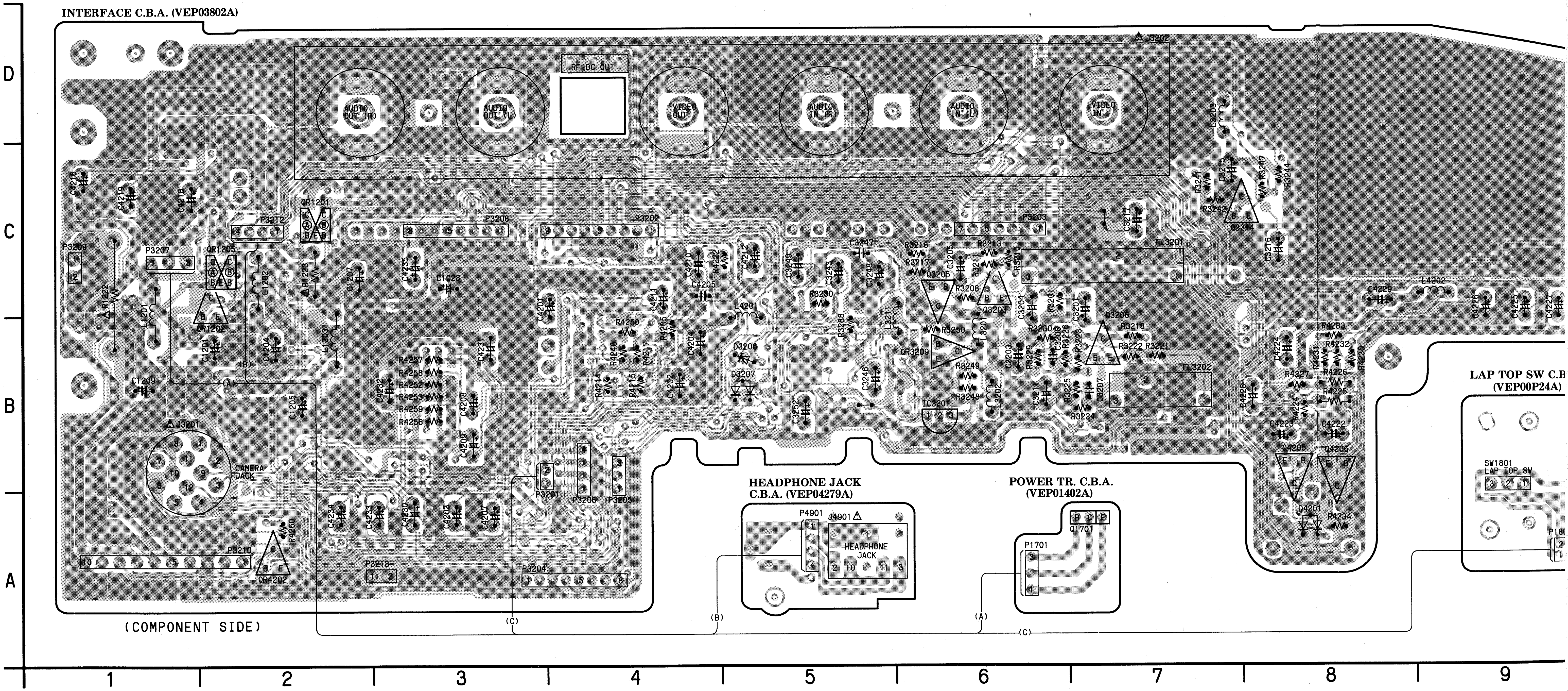

TP4505 REC
0.1V/20μsec. div. 0.34Vp-p

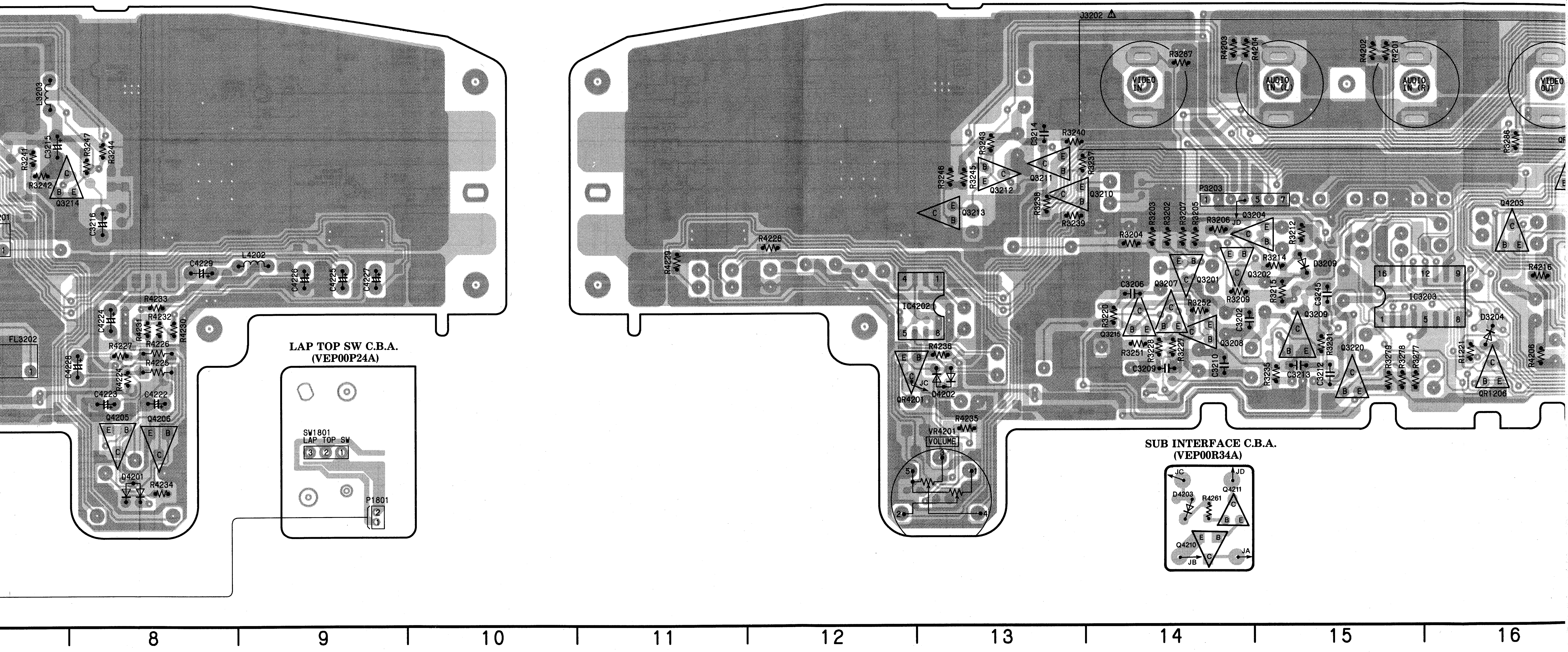
Next Page:
INTERFACE Section

3-18. INTERFACE C.B.A. (VEP03802A)

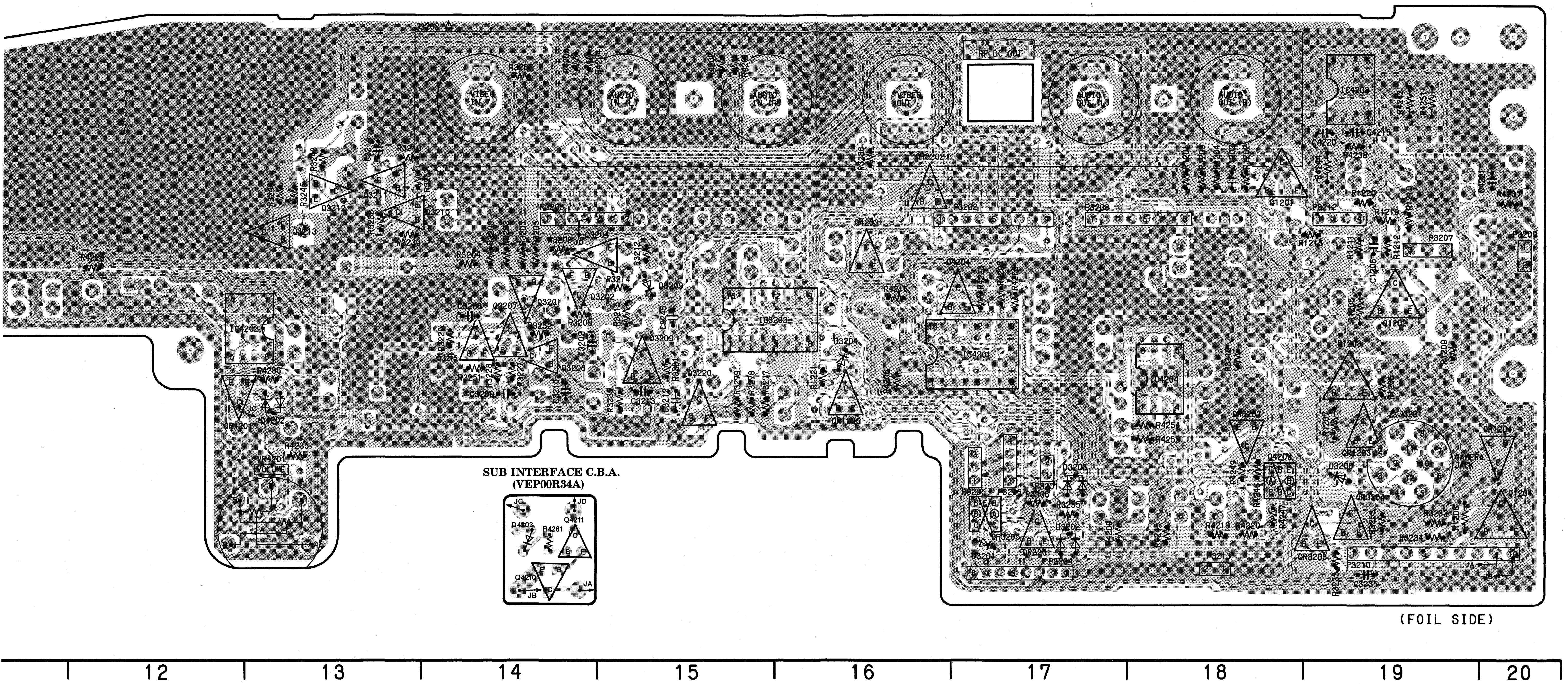

INTERFACE C.B.A. (VEP03802A)
(COMPONENT SIDE)
HEADPHONE JACK C.B.A. (VEP04279A)
POWER TR. C.B.A. (VEP01402A)
LAP TOP SW C.B
(VEP00P24A)
RF DC OUT
AUDIO OUT (R)
AUDIO OUT (L)
VIDEO OUT
AUDIO IN (R)
AUDIO IN (L)
VIDEO IN
J3202
J3201
CAMERA JACK
HEADPHONE JACK
J4901
P4901
P1701
Q1701
SW1801
LAP TOP SW
P3209
P3207
P3212
P3208
P3202
P3203
P3201
P3206
P3205
P3204
P3213
P3210
QR1201
QR1205
QR1202
QR4202
Q3205
Q3203
Q3206
Q3214
QR3209
Q4205
Q4206
IC3201
FL3201
FL3202
D3206
D3207
D4201
L1201
L1202
L1203
L4201
L4202
L3203
L3211
L3201
L3202
(A)
(B)
(C)
D
C
B
A
1
2
3
4
5
6
7
8
9

3-18. INTERFACE C.B.A. (VEP03802A)


INTERFACE C.B.A. (VEP03802A)
AUDIO OUT (R)
AUDIO OUT (L)
RF DC OUT
VIDEO OUT
AUDIO IN (R)
AUDIO IN (L)
VIDEO IN
J3202
CAMERA JACK
J3201
QR1201
QR1202
QR1205
QR3209
QR4202
P3202
P3203
P3204
P3205
P3206
P3207
P3208
P3209
P3210
P3212
P3213
P3201
Q3203
Q3205
Q3206
Q3214
Q4205
Q4206
IC3201
FL3201
FL3202
D3206
D3207
D4201
L1201
L1202
L1203
L3201
L3202
L3203
L3211
L4201
L4202
(A)
(B)
(C)
(COMPONENT SIDE)
HEADPHONE JACK C.B.A. (VEP04279A)
P4901
J4901
HEADPHONE JACK
POWER TR. C.B.A. (VEP01402A)
P1701
Q1701
LAP TOP SW C.B
(VEP00P24A)
SW1801
LAP TOP SW
P180
D
C
B
A
1
2
3
4
5
6
7
8
9



LAP TOP SW C.B.A.
(VEP00P24A)
SW1801
LAP TOP SW
P1801
SUB INTERFACE C.B.A.
(VEP00R34A)
JC
JD
JA
JB
D4203
R4261
Q4211
Q4210
J3202
VIDEO IN
AUDIO IN (L)
AUDIO IN (R)
VIDEO OUT
R3287
R4203
R4204
R4202
R4201
R3286
R3240
R3237
R3243
R3245
R3246
C3214
Q3211
Q3212
Q3210
Q3213
R3238
R3239
P3203
R3203
R3202
R3207
R3205
R3206
Q3204
R3204
R3212
R3214
D3209
Q3201
Q3202
Q3207
R3209
R3215
C3245
IC3203
Q3209
C3206
R3220
Q3215
R3252
R3251
R3228
R3227
C3209
C3202
C3210
Q3208
R3235
C3213
C3212
R3231
Q3220
R3279
R3278
R3277
R1221
D3204
QR1206
R4206
Q4203
R4216
R4228
R4229
IC4202
R4236
D4202
QR4201
R4235
VR4201
VOLUME
L3203
C3215
R3247
R3244
R3241
R3242
Q3214
C3216
C4229
L4202
C4226
C4225
C4227
R4233
R4232
R4231
R4230
C4224
FL3202
R4227
R4226
R4225
R4224
C4228
C4223
C4222
Q4205
Q4206
D4201
R4234
8
9
10
11
12
13
14
15
16



SUB INTERFACE C.B.A.
(VEP00R34A)

(FOIL SIDE)

J3202
VIDEO IN
AUDIO IN (L)
AUDIO IN (R)
VIDEO OUT
RF DC OUT
AUDIO OUT (L)
AUDIO OUT (R)
IC4203
IC4202
IC3203
IC4201
IC4204
P3203
P3202
P3208
P3212
P3207
P3209
P3205
P3206
P3201
P3204
P3213
P3210
J3201
CAMERA JACK
VR4201
VOLUME
Q4209
Q4210
Q4211
D4203
R4261
JA
JB
JC
JD
12
13
14
15
16
17
18
19
20

3-19. INTERFACE SCHEMATIC DIAGRAM

◀■ VIDEO MAIN SIGNAL PATH IN REC MODE
◁ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
◀■■ AUDIO MAIN SIGNAL PATH IN REC MC
◁□ AUDIO MAIN SIGNAL PATH IN PLAYBA

INTERFACE C.B.A.

Transistor	
Q1201	C-18 Ⓕ
Q1202	B-19 Ⓕ
Q1203	B-19 Ⓕ
Q1204	A-20 Ⓕ
Q1701	A-7
Q3201	C-14 Ⓕ
Q3202	C-14 Ⓕ
Q3203	C-6 Ⓒ
Q3204	C-14 Ⓕ
Q3205	C-6 Ⓒ
Q3206	B-7 Ⓒ
Q3207	B-14 Ⓕ
Q3208	B-14 Ⓕ
Q3209	B-15 Ⓕ
Q3210	C-14 Ⓕ
Q3211	C-13 Ⓕ
Q3212	C-13 Ⓕ
Q3213	C-13 Ⓕ
Q3214	C-7 Ⓒ
Q3215	B-14 Ⓕ
Q3220	B-15 Ⓕ
Q4203	C-16 Ⓕ
Q4204	C-17 Ⓕ
Q4205	B-8 Ⓒ
Q4206	B-8 Ⓒ
Q4209	B-18 Ⓕ

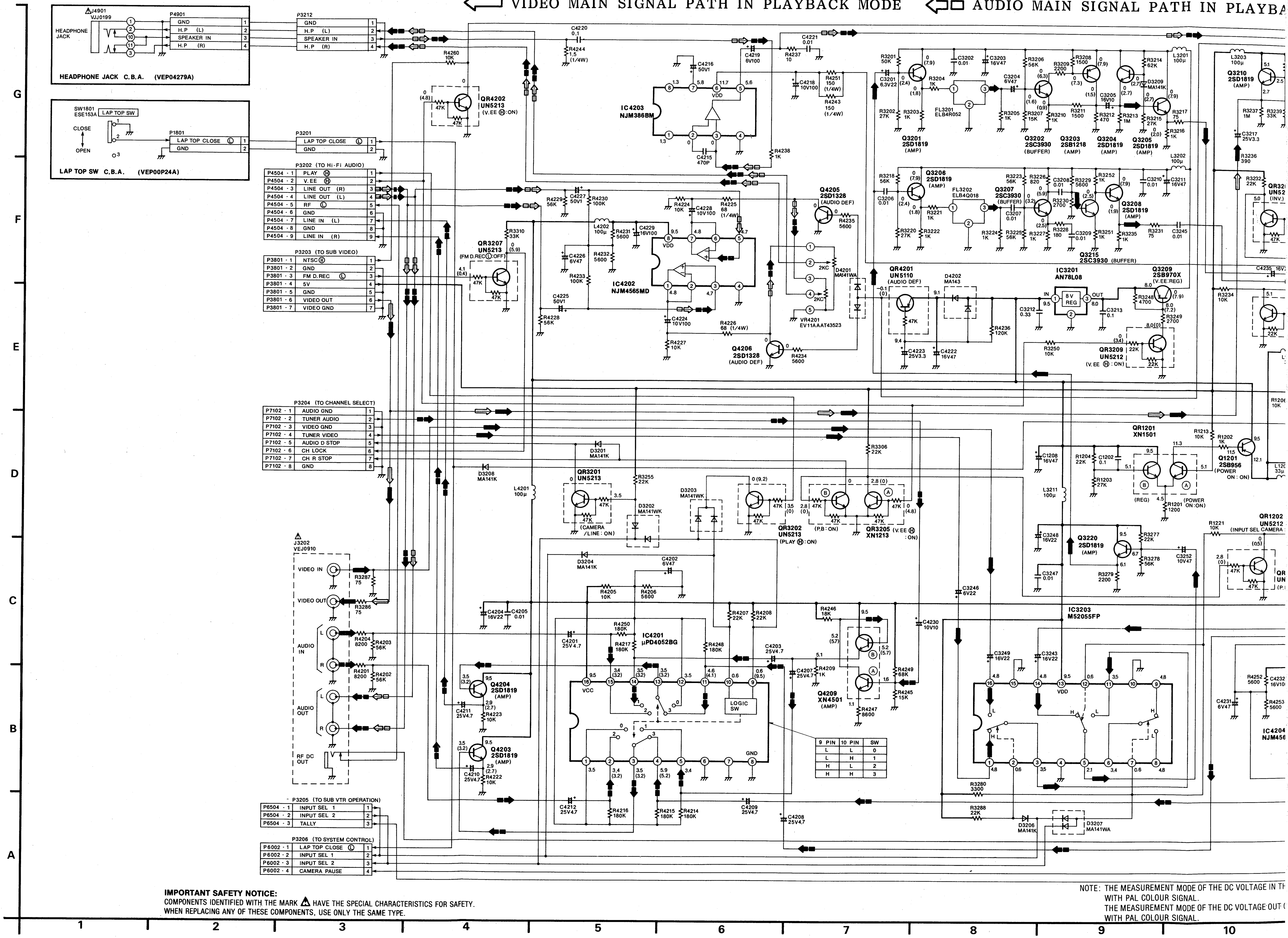
Transistor & Resistor	
QR1201	C-2 Ⓒ
QR1202	B-2 Ⓒ
QR1203	B-19 Ⓕ
QR1204	B-20 Ⓕ
QR1205	C-2 Ⓒ
QR1206	B-16 Ⓕ
QR3201	A-17 Ⓕ
QR3202	B-16 Ⓕ
QR3203	A-19 Ⓕ
QR3204	A-19 Ⓕ
QR3205	A-17 Ⓕ
QR3207	B-18 Ⓕ
QR3209	B-6 Ⓒ
QR4201	B-12 Ⓕ
QR4202	A-2 Ⓒ

Integrated Circuit	
IC3201	B-6 Ⓒ
IC3203	B-15 Ⓕ
IC4201	B-17 Ⓕ
IC4202	B-13 Ⓕ
IC4203	D-19 Ⓕ
IC4204	B-18 Ⓕ

Adjustment	
VR4201	B-13 Ⓕ

Connector	
P1701	A-6
P1801	A-9
P3201	A-3 Ⓒ
P3201	A-17 Ⓕ
P3202	C-4 Ⓒ
P3202	C-17 Ⓕ
P3203	C-6 Ⓒ
P3203	C-14 Ⓕ
P3204	A-3 Ⓒ
P3204	A-17 Ⓕ
P3205	A-4 Ⓒ
P3205	A-17 Ⓕ
P3206	A-4 Ⓒ
P3206	A-17 Ⓕ
P3207	C-1 Ⓒ
P3207	C-19 Ⓕ
P3208	C-3 Ⓒ
P3208	C-17 Ⓕ
P3209	C-1 Ⓒ
P3209	C-20 Ⓕ
P3210	A-2 Ⓒ
P3210	A-19 Ⓕ
P3212	C-2 Ⓒ
P3212	C-19 Ⓕ
P3213	A-3 Ⓒ
P3213	A-18 Ⓕ
P4901	A-5

ADDRESS INFORMATION
Ⓒ... COMPONENT SIDE
Ⓕ... FOIL SIDE


HEADPHONE JACK C.B.A. (VEP04279A)
J4901 VJJ0199
HEADPHONE JACK
P4901
GND
H.P (L)
SPEAKER IN
H.P (R)
P3212
SW1801 ESE153A
LAP TOP SW
CLOSE
OPEN
P1801
LAP TOP CLOSE
LAP TOP SW C.B.A. (VEP00P24A)
P3201
P3202 (TO HI-FI AUDIO)
PLAY
V.EE
LINE OUT (R)
LINE OUT (L)
RF
LINE IN (L)
LINE IN (R)
P3203 (TO SUB VIDEO)
NTSC
FM D.REC
5V
VIDEO OUT
VIDEO GND
P3204 (TO CHANNEL SELECT)
AUDIO GND
TUNER AUDIO
VIDEO GND
TUNER VIDEO
AUDIO D STOP
CH LOCK
CH R STOP
J3202 VEJ0910
VIDEO IN
VIDEO OUT
AUDIO IN
AUDIO OUT
RF DC OUT
P3205 (TO SUB VTR OPERATION)
INPUT SEL 1
INPUT SEL 2
TALLY
P3206 (TO SYSTEM CONTROL)
LAP TOP CLOSE
INPUT SEL 1
INPUT SEL 2
CAMERA PAUSE
QR4202 UN5213 (V.EE Ⓗ:ON)
IC4203 NJM386BM
QR3207 UN5213 (FM D.REC Ⓛ:OFF)
IC4202 NJM4565MD
Q4205 2SD1328 (AUDIO DEF)
Q4206 2SD1328 (AUDIO DEF)
VR4201 EV11AAAT43523
D4201 MA141WA
QR4201 UN5110 (AUDIO DEF)
D4202 MA143
Q3201 2SD1819 (AMP)
Q3202 2SC3930 (BUFFER)
Q3203 2SB1218 (AMP)
Q3204 2SD1819 (AMP)
Q3205 2SD1819 (AMP)
FL3201 ELB4R052
Q3206 2SD1819 (AMP)
FL3202 ELB4Q018
Q3207 2SC3930 (BUFFER)
Q3208 2SD1819 (AMP)
Q3215 2SC3930 (BUFFER)
IC3201 AN78L08
Q3209 2SB970X (V.EE:REG)
QR3209 UN5212 (V.EE Ⓗ:ON)
Q3210 2SD1819 (AMP)
D3201 MA141K
D3208 MA141K
QR3201 UN5213 (CAMERA /LINE: ON)
D3202 MA141WK
D3203 MA141WK
QR3202 UN5213 (PLAY Ⓗ:ON)
QR3205 XN1213 (V.EE Ⓗ:ON)
(PB:ON)
QR1201 XN1501
Q1201 2SB956 (POWER ON:ON)
(REG)
(POWER ON:ON)
QR1202 UN5212 (INPUT SEL CAMERA
Q3220 2SD1819 (AMP)
D3204 MA141K
IC4201 µPD4052BG
LOGIC SW
Q4204 2SD1819 (AMP)
Q4203 2SD1819 (AMP)
Q4209 XN4501 (AMP)
IC3203 M52055FP
D3206 MA141K
D3207 MA141WA
IC4204 NJM456
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

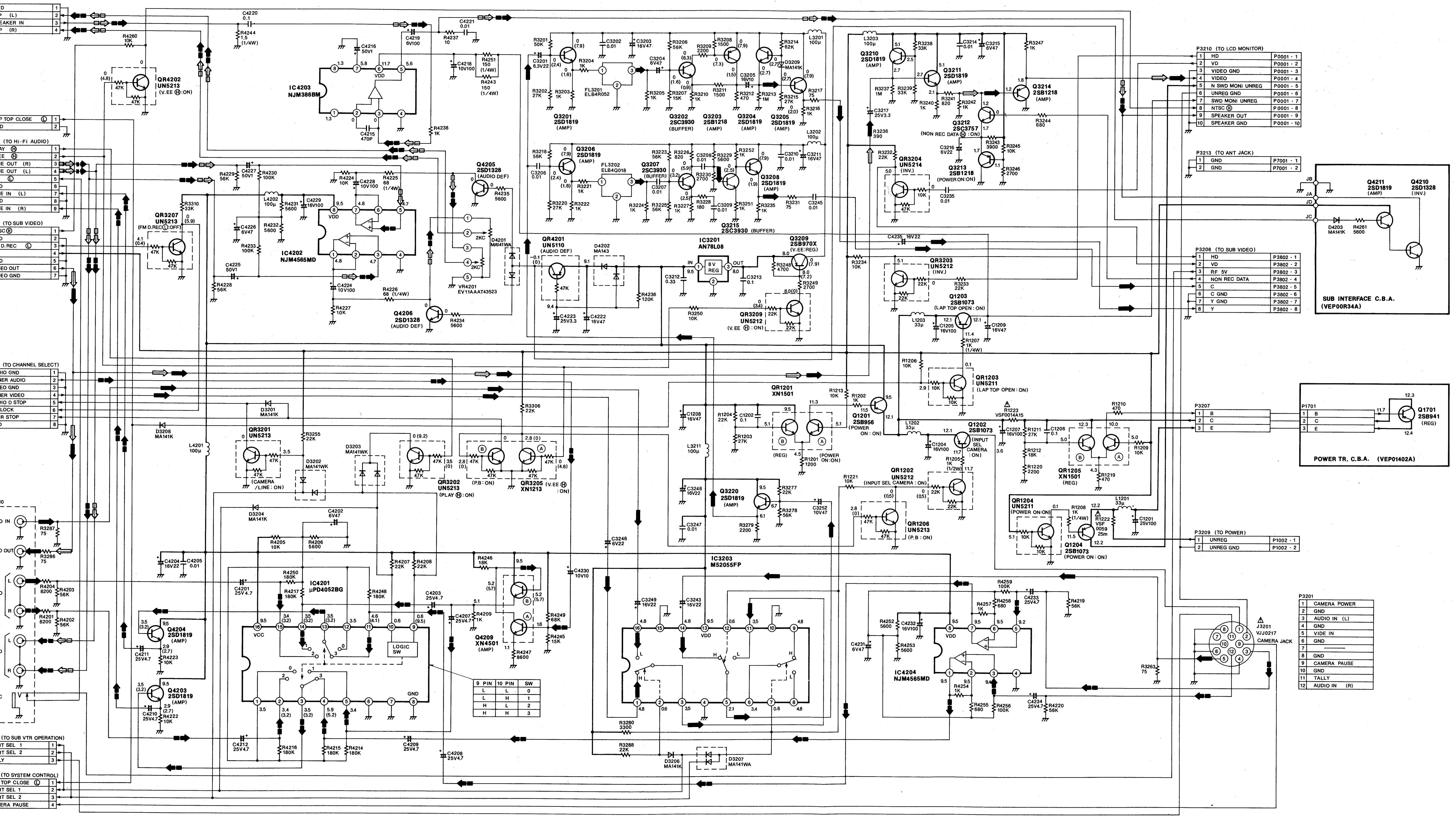
9 PIN	10 PIN	SW
L	L	0
L	H	1
H	L	2
H	H	3

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN T
WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT
WITH PAL COLOUR SIGNAL.

DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



IC4203 NJM386BM
IC4202 NJM4565MD
IC4201 µPD4052BG
IC3201 AN78L08
IC3203 M52055FP
IC4204 NJM4565MD
QR4202 UN5213 (V.EE Ⓗ:ON)
QR3207 UN5213 (FM D.REC Ⓛ:OFF)
Q4205 2SD1328 (AUDIO DEF)
Q4206 2SD1328 (AUDIO DEF)
VR4201 EV11AAAT43523
QR4201 UN5110 (AUDIO DEF)
D4202 MA143
D4201 MA141WA
Q3201 2SD1819 (AMP)
FL3201 ELB4R052
Q3202 2SC3930 (BUFFER)
Q3203 2SB1218 (AMP)
Q3204 2SD1819 (AMP)
Q3205 2SD1819 (AMP)
D3209 MA141K
Q3206 2SD1819 (AMP)
FL3202 ELB4Q018
Q3207 2SC3930 (BUFFER)
Q3208 2SD1819 (AMP)
Q3215 2SC3930 (BUFFER)
Q3209 2SB970X (V.EE:REG)
QR3209 UN5212 (V.EE Ⓗ:ON)
Q3210 2SD1819 (AMP)
Q3211 2SD1819 (AMP)
Q3212 2SC3757 (NON REC DATA Ⓗ:ON)
Q3213 2SB1218 (POWER ON:ON)
Q3214 2SB1218 (AMP)
QR3204 UN5214 (INV.)
QR3203 UN5212 (INV.)
Q1203 2SB1073 (LAP TOP OPEN:ON)
QR1203 UN5211 (LAP TOP OPEN:ON)
QR1201 XN1501 (REG) (POWER ON:ON)
Q1201 2SB956 (POWER ON:ON)
Q1202 2SB1073 (INPUT SEL CAMERA:ON)
QR1202 UN5212 (INPUT SEL CAMERA:ON)
QR1205 XN1501 (REG)
QR1204 UN5211 (POWER ON:ON)
Q1204 2SB1073 (POWER ON:ON)
QR1206 UN5213 (P.B:ON)
Q3220 2SD1819 (AMP)
QR3201 UN5213 (CAMERA /LINE:ON)
D3202 MA141WK
D3203 MA141WK
QR3202 UN5213 (PLAY Ⓗ:ON)
QR3205 XN1213 (V.EE Ⓗ:ON)
D3201 MA141K
D3208 MA141K
D3204 MA141K
Q4204 2SD1819 (AMP)
Q4203 2SD1819 (AMP)
Q4209 XN4501 (AMP)
D3206 MA141K
D3207 MA141WA
D4203 MA141K
Q4211 2SD1819 (AMP)
Q4210 2SD1328 (INV.)
SUB INTERFACE C.B.A. (VEP00R34A)
Q1701 2SB941 (REG)
POWER TR. C.B.A. (VEP01402A)
P1701
J3201 VJJ0217 CAMERA JACK
P3210 (TO LCD MONITOR)
1 HD P0001 - 1
2 VD P0001 - 2
3 VIDEO GND P0001 - 3
4 VIDEO P0001 - 4
5 N SWD MONI UNREG P0001 - 5
6 UNREG GND P0001 - 6
7 SWD MONI UNREG P0001 - 7
8 NTSC Ⓗ P0001 - 8
9 SPEAKER OUT P0001 - 9
10 SPEAKER GND P0001 - 10
P3213 (TO ANT JACK)
1 GND P7001 - 1
2 GND P7001 - 2
P3208 (TO SUB VIDEO)
1 HD P3802 - 1
2 VD P3802 - 2
3 RF 5V P3802 - 3
4 NON REC DATA P3802 - 4
5 C P3802 - 5
6 C GND P3802 - 6
7 Y GND P3802 - 7
8 Y P3802 - 8
P3207
1 B
2 C
3 E
P3209 (TO POWER)
1 UNREG P1002 - 1
2 UNREG GND P1002 - 2
P3201
1 CAMERA POWER
2 GND
3 AUDIO IN (L)
4 GND
5 VIDE IN
6 GND
7 ——
8 GND
9 CAMERA PAUSE
10 GND
11 TALLY
12 AUDIO IN (R)
(TO HI-FI AUDIO)
(TO SUB VIDEO)
(TO CHANNEL SELECT)
(TO SUB VTR OPERATION)
(TO SYSTEM CONTROL)
9 PIN | 10 PIN | SW
L L 0
L H 1
H L 2
H H 3
LOGIC SW
VCC
VDD
GND
8V REG

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

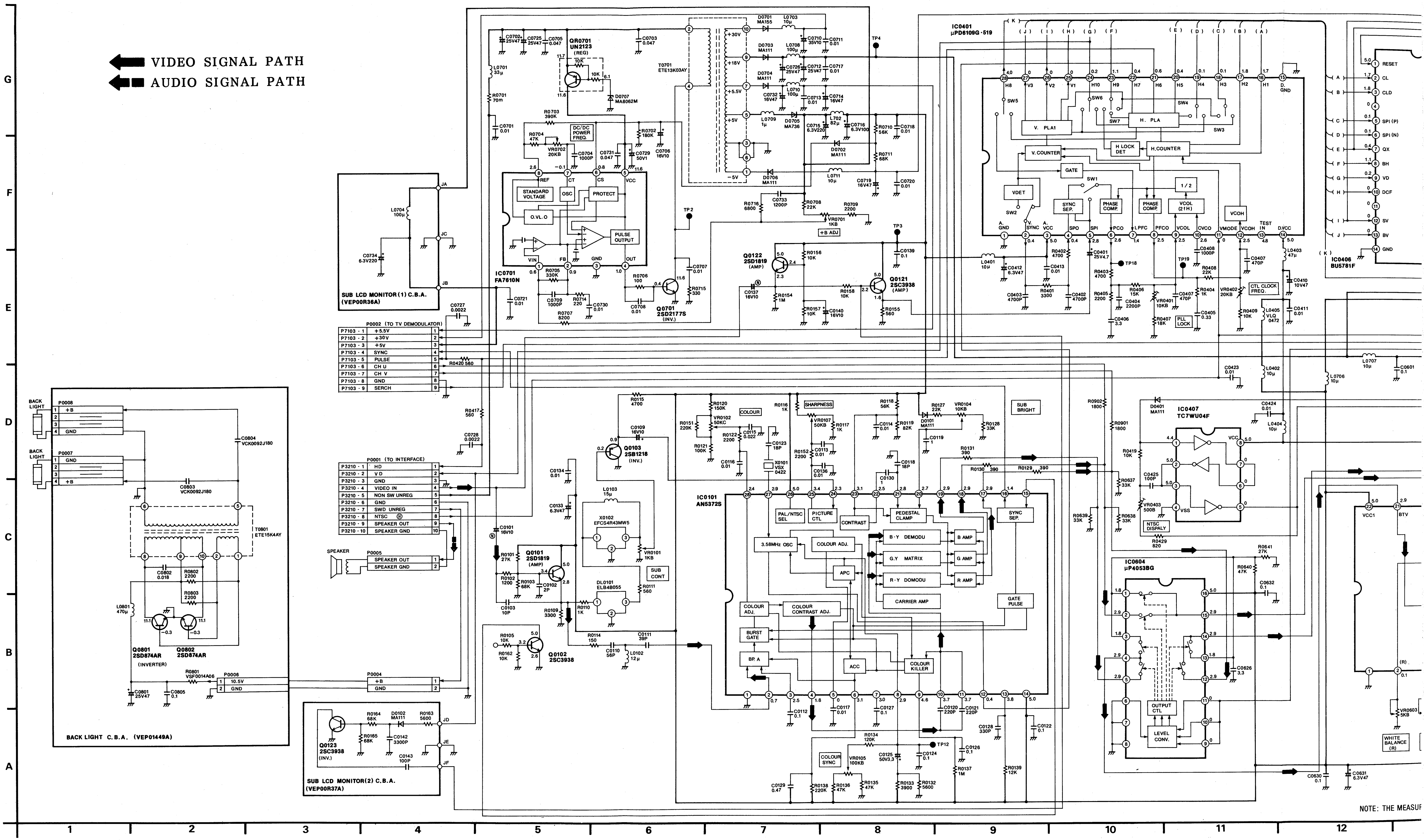
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

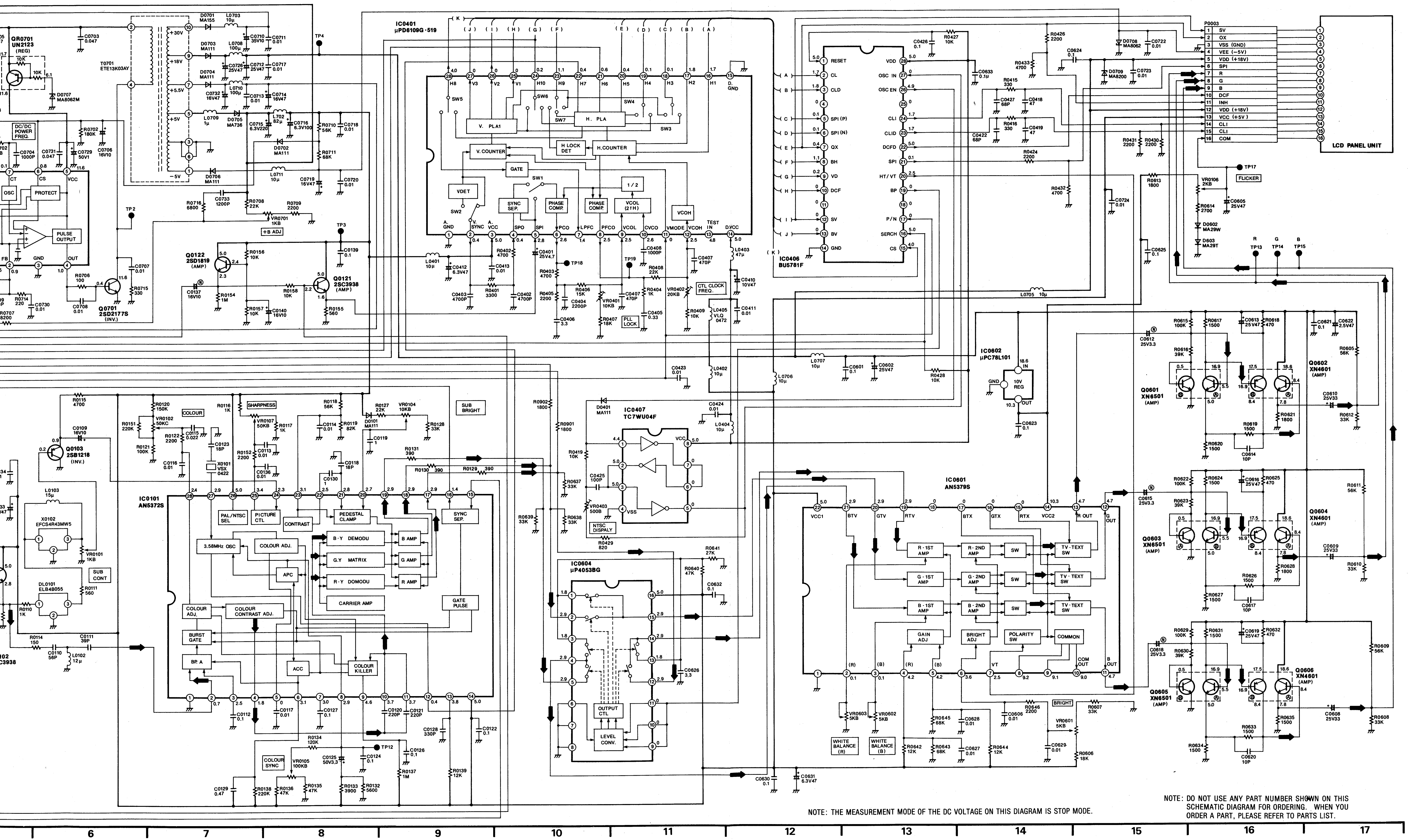
HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
, USE ONLY THE SAME TYPE.

3 4 5 6 7 8 9 10 11 12 13 14

Next Page:
LCD MONITOR Section

3-20. LCD MONITOR SCHEMATIC DIAGRAM


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
SUB LCD MONITOR (1) C.B.A. (VEP00R36A)
SUB LCD MONITOR (2) C.B.A. (VEP00R37A)
BACK LIGHT C.B.A. (VEP01449A)
BACK LIGHT
P0008
+B
GND
P0007
GND
+B
T0801 ETE15K4AY
C0803 VCK0092J180
C0804 VCK0092J180
Q0801 2SD874AR (INVERTER)
Q0802 2SD874AR
R0801 VSF0014A06
P0006
10.5V
GND
P0004
+B
GND
SPEAKER
P0005
SPEAKER OUT
SPEAKER GND
P0002 (TO TV DEMODULATOR)
P7103 - 1 +5.5V
P7103 - 2 +30V
P7103 - 3 +5V
P7103 - 4 SYNC
P7103 - 5 PULSE
P7103 - 6 CH U
P7103 - 7 CH V
P7103 - 8 GND
P7103 - 9 SERCH
P0001 (TO INTERFACE)
P3210 - 1 HD
P3210 - 2 VD
P3210 - 3 GND
P3210 - 4 VIDEO IN
P3210 - 5 NON SW UNREG
P3210 - 6 GND
P3210 - 7 SWD UNREG
P3210 - 8 NTSC (H)
P3210 - 9 SPEAKER OUT
P3210 - 10 SPEAKER GND
IC0701 FA7610N
QR0701 UN2123 (REG)
Q0701 2SD2177S (INV.)
T0701 ETE13K03AY
STANDARD VOLTAGE
OSC
PROTECT
O.VL.O
PULSE OUTPUT
DC/DC POWER FREQ.
REF CT CS VCC VIN FB GND OUT
+30V +18V +5.5V +5V -5V
TP2 TP3 TP4
+B ADJ
Q0122 2SD1819 (AMP)
Q0121 2SC3938 (AMP)
Q0101 2SD1819 (AMP)
Q0102 2SC3938
Q0103 2SB1218 (INV.)
Q0123 2SC3938 (INV.)
X0102 EFCS4R43MW5
DL0101 ELB4B055
SUB CONT
X0101 VSX 0422
IC0101 AN5372S
PAL/NTSC SEL
PICTURE CTL
CONTRAST
PEDESTAL CLAMP
SYNC SEP.
3.58MHz OSC
COLOUR ADJ.
B-Y DEMODU
G.Y MATRIX
R-Y DOMODU
B AMP
G AMP
R AMP
APC
CARRIER AMP
GATE PULSE
COLOUR ADJ.
COLOUR CONTRAST ADJ.
BURST GATE
BP. A
ACC
COLOUR KILLER
COLOUR
SHARPNESS
SUB BRIGHT
COLOUR SYNC
TP12
IC0401 µPD6109G-519
H8 V3 V2 V1 H10 H9 H7 H6 H5 H4 H3 H2 H1 D.GND
SW5 SW6 SW7 SW4 SW3 SW1 SW2
V. PLA1
H. PLA
V.COUNTER
H LOCK DET
H.COUNTER
GATE
VDET
SYNC SEP.
PHASE COMP.
PHASE COMP.
VCOL (21H)
1/2
VCOH
A.GND V.SYNC A.VCC SPO SPI PCO LPFC PFCO VCOL CVCO VMODE VCOH TEST IN D.VCC
TP18 TP19
CTL CLOCK FREQ.
PLL LOCK
IC0406 BU5781F
RESET CL CLD SPI (P) SPI (N) QX BH VD DCF SV BV GND
IC0407 TC7WU04F
VCC VSS
NTSC DISPLAY
IC0604 µP4053BG
OUTPUT CTL
LEVEL CONV.
VCC1 BTV
WHITE BALANCE (R)
NOTE: THE MEASU
A B C D E F G
1 2 3 4 5 6 7 8 9 10 11 12

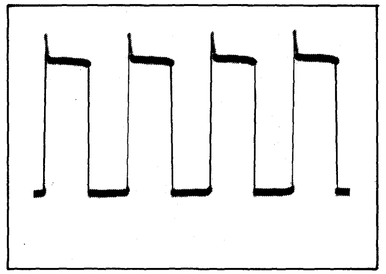

QR0701 UN2123 (REG)
T0701 ETE13K03AY
DC/DC POWER FREQ.
OSC
PROTECT
PULSE OUTPUT
Q0701 2SD2177S (INV.)
Q0122 2SD1819 (AMP)
Q0121 2SC3938 (AMP)
TP2
TP3
TP4
+B ADJ
IC0401 µPD6109G-519
V. PLA1
H. PLA
V. COUNTER
H LOCK DET
H.COUNTER
GATE
VDET
SYNC SEP.
PHASE COMP.
VCOL (2 f H)
VCOH
1/2
CTL CLOCK FREQ.
PLL LOCK
TP18
TP19
IC0406 BU5781F
RESET
CL
CLD
SPI (P)
SPI (N)
QX
BH
VD
DCF
SV
BV
GND
VDD
OSC IN
OSC EN
CLI
CLID
DCFD
SPI
HT/VT
BP
P/N
SERCH
CS
P0003
SV
QX
VSS (GND)
VEE (−5V)
VDD (+18V)
SPI
R
G
B
DCF
INH
VDD (+18V)
VCC (+5V)
CLI
CLI
COM
LCD PANEL UNIT
TP17
FLICKER
TP13
TP14
TP15
IC0602 µPC78L101
10V REG
Q0601 XN6501 (AMP)
Q0602 XN4601 (AMP)
Q0603 XN6501 (AMP)
Q0604 XN4601 (AMP)
Q0605 XN6501 (AMP)
Q0606 XN4601 (AMP)
IC0407 TC7WU04F
NTSC DISPALY
IC0604 µP4053BG
OUTPUT CTL
LEVEL CONV.
IC0601 AN5379S
R-1ST AMP
G-1ST AMP
B-1ST AMP
R-2ND AMP
G-2ND AMP
B-2ND AMP
SW
TV-TEXT SW
GAIN ADJ
BRIGHT ADJ
POLARITY SW
COMMON
WHITE BALANCE (R)
WHITE BALANCE (B)
BRIGHT
Q0103 2SB1218 (INV.)
X0102 EFCS4R43MW5
DL0101 ELB4B055
SUB CONT
COLOUR
SHARPNESS
SUB BRIGHT
IC0101 AN5372S
PAL/NTSC SEL
PICTURE CTL
CONTRAST
PEDESTAL CLAMP
SYNC SEP.
3.58MHz OSC
COLOUR ADJ.
B-Y DEMODU
G-Y MATRIX
R-Y DOMODU
B AMP
G AMP
R AMP
APC
CARRIER AMP
GATE PULSE
COLOUR ADJ.
COLOUR CONTRAST ADJ.
BURST GATE
BP A
ACC
COLOUR KILLER
COLOUR SYNC
TP12
6
7
8
9
10
11
12
13
14
15
16
17

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

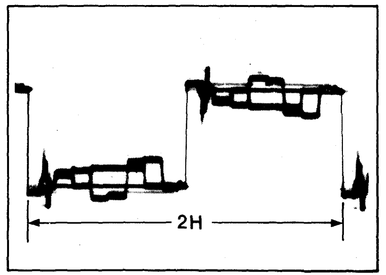
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-21. LCD MONITOR C.B.A. (VEP03800A)

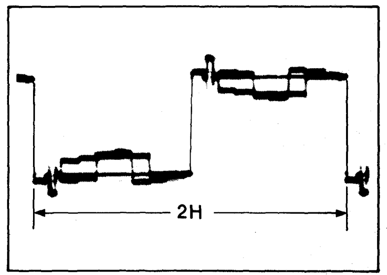
LCD MONITOR CIRCUIT TP WAVEFORM



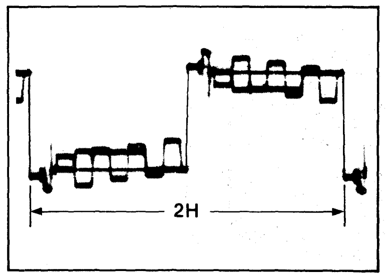
TP2 STOP
10V/10µsec. div. 28Vp-p



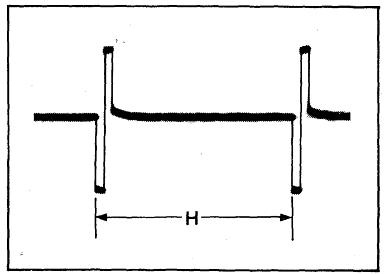
TP13 STOP
5.0V/20µsec. div. 15Vp-p



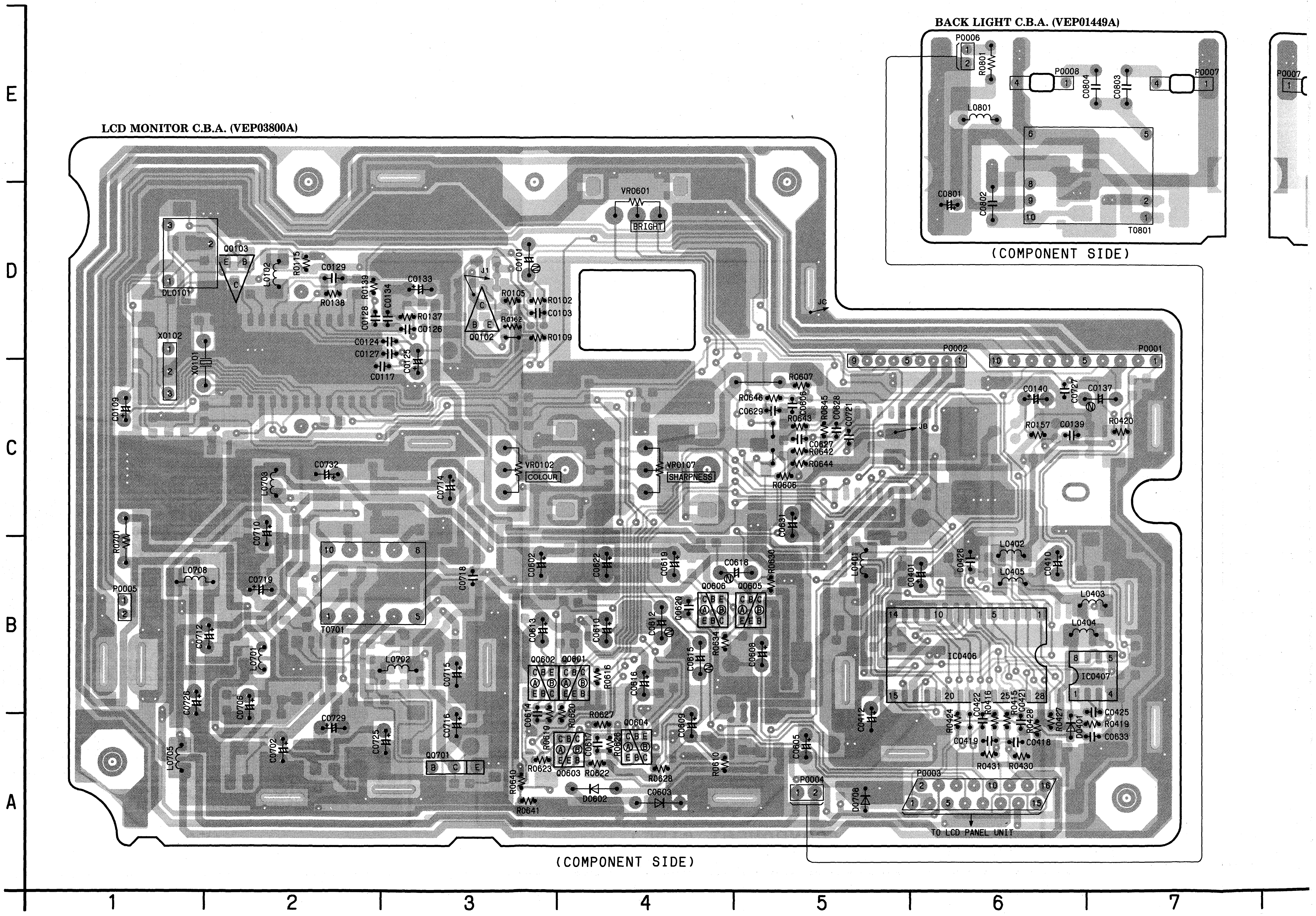
TP14 STOP
5.0V/20µsec. div. 15Vp-p



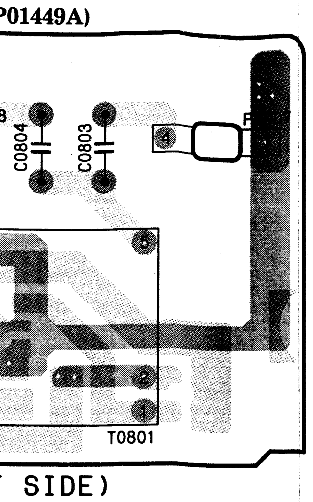
TP15 STOP
5.0V/20µsec. div. 15Vp-p

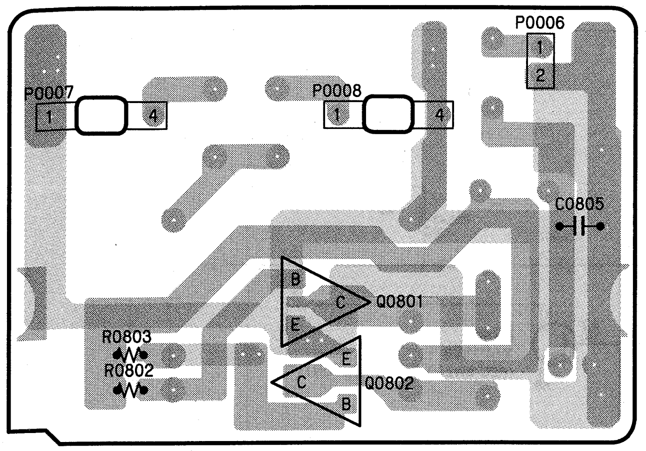


TP18 STOP
1.0V/20µsec. div. 5.0Vp-p

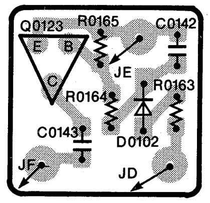


LCD MONITOR C.B.A. (VEP03800A)
BACK LIGHT C.B.A. (VEP01449A)
(COMPONENT SIDE)
(COMPONENT SIDE)
E
D
C
B
A
1
2
3
4
5
6
7
P0006
R0801
P0008
C0804
C0803
P0007
L0801
C0801
C0802
T0801
VR0601
BRIGHT
Q0103
DL0101
L0102
R0115
C0129
R0138
R0139
C0133
C0128
C0134
R0137
C0126
C0124
C0127
C0123
C0117
X0102
X0101
J1
C0101
R0105
R0102
C0103
R0162
R0109
Q0102
JC
P0002
P0001
C0109
R0607
R0646
C0629
C0606
R0645
C0628
R0643
C0721
C0627
R0642
R0644
R0606
C0140
C0727
C0137
R0157
C0139
R0420
JB
C0732
L0703
C0714
VR0102
COLOUR
VR0107
SHARPNESS
C0631
R0701
C0710
L0708
C0719
P0005
T0701
C0718
C0602
C0622
C0619
C0618
R0630
Q0606
Q0605
L0401
C0401
C0426
L0402
L0405
C0410
L0403
L0404
C0712
L0701
L0702
C0715
C0613
C0610
C0612
C0620
R0634
C0608
IC0406
IC0407
Q0602
Q0601
R0616
C0616
C0615
C0726
C0706
C0729
C0716
C0725
C0702
L0705
Q0701
C0614
R0620
R0619
R0627
Q0604
C0617
R0626
C0609
R0610
C0605
C0412
R0424
C0422
R0416
C0421
R0428
R0415
R0427
D0401
C0425
R0419
C0633
C0419
C0418
R0431
R0430
R0623
Q0603
R0622
R0628
R0640
R0641
D0602
C0603
P0004
D0708
P0003
TO LCD PANEL UNIT

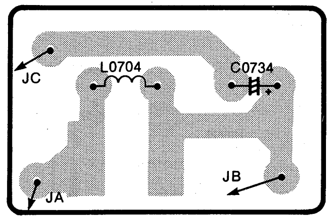

P01449A)
C0804
C0803
T0801
T SIDE)


P0006
P0007
P0008
C0805
Q0801
Q0802
R0803
R0802

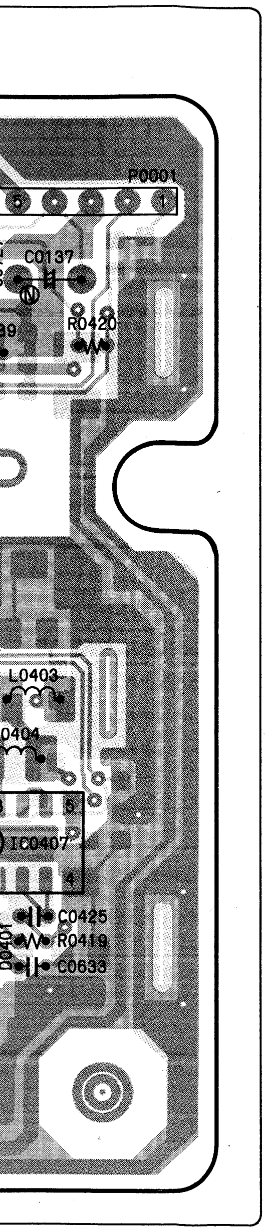
(FOIL SIDE)

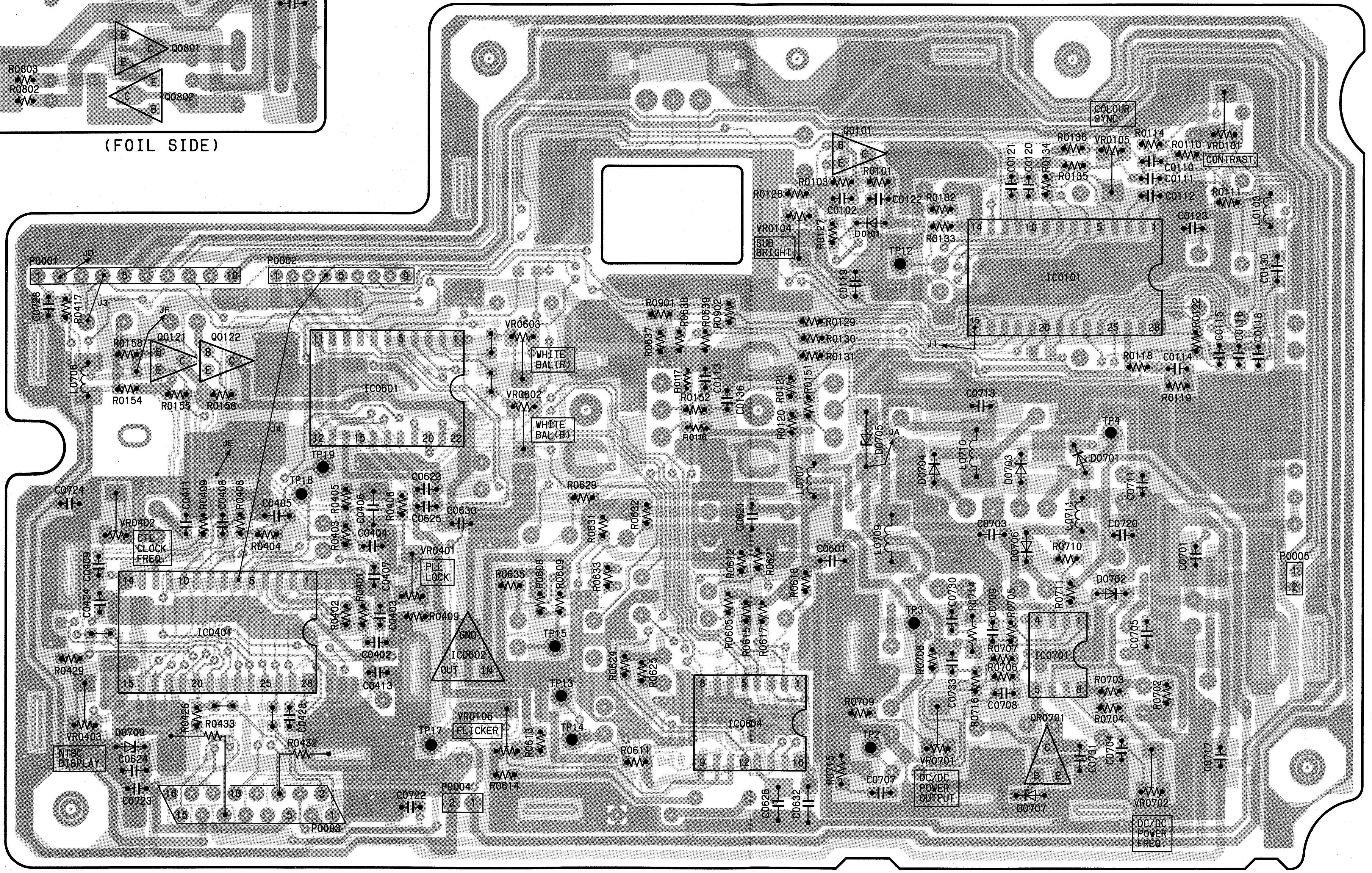

Q0123
R0165
C0142
R0164
R0163
C0143
D0102
JE
JF
JD

SUB LCD MONITOR
(2) C.B.A. (VEP00R37A)


JC
L0704
C0734
JB
JA

SUB LCD MONITOR
(1) C.B.A. (VEP00R36A)


P0001
C0137
R0420
L0403
IC0407
C0425
R0419
C0633


COLOUR SYNC
CONTRAST
SUB BRIGHT
WHITE BAL(R)
WHITE BAL(B)
CTL CLOCK FREQ.
PLL LOCK
FLICKER
NTSC DISPLAY
DC/DC POWER OUTPUT
DC/DC POWER FREQ.
IC0101
IC0401
IC0601
IC0602
IC0604
IC0701
P0001
P0002
P0003
P0004
P0005
TP2
TP3
TP4
TP12
TP13
TP14
TP15
TP17
TP18
TP19

(FOIL SIDE)

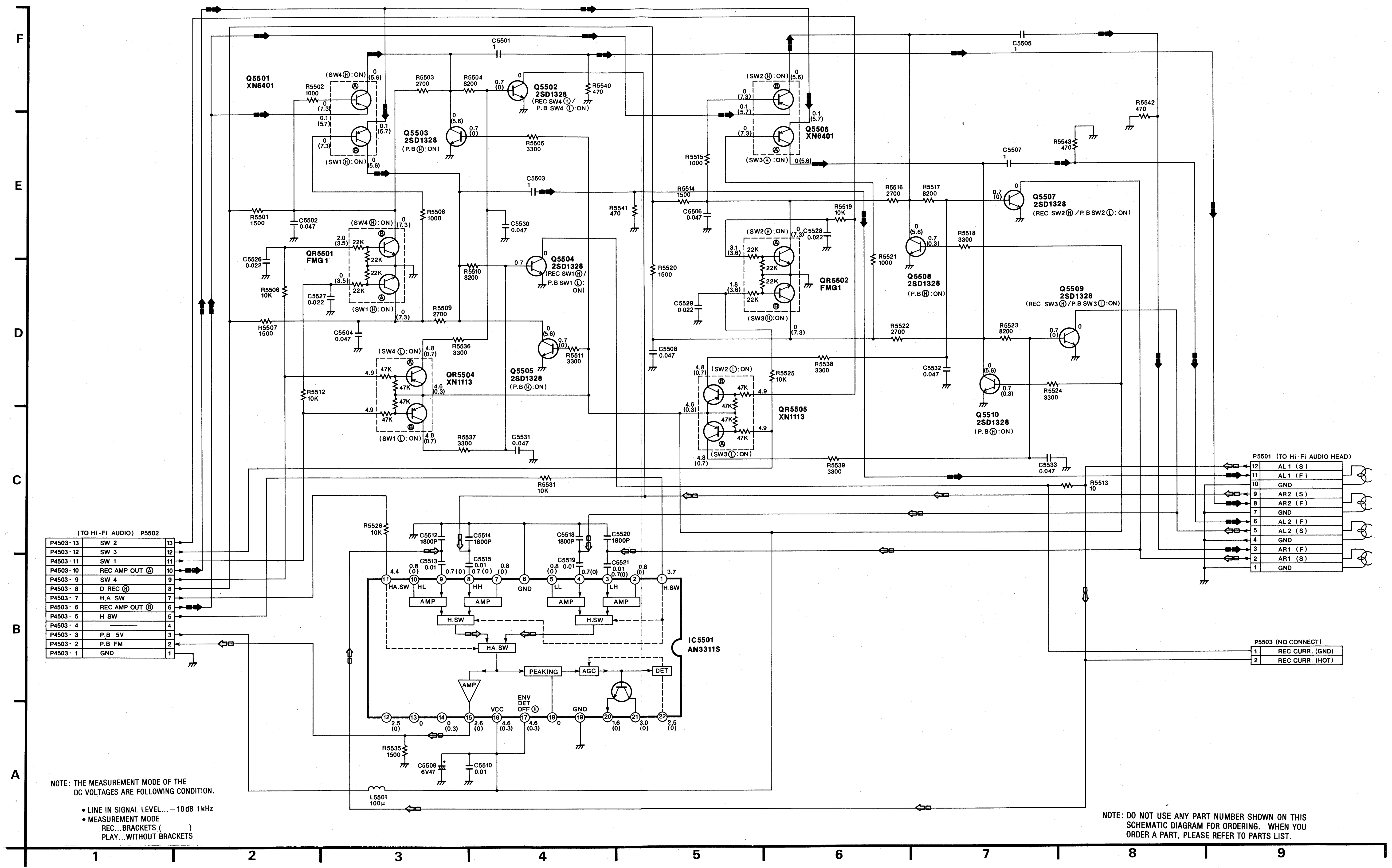
7 8 9 10 11 12 13 14

LCD MONITOR C.B.A.	
Transistor	
Q0101	D-12 Ⓕ
Q0102	D-3 ©
Q0103	D-2 ©
Q0121	C-9 Ⓕ
Q0122	C-9 Ⓕ
Q0601	B-4 ©
Q0602	B-3 ©
Q0603	A-4 ©
Q0604	A-4 ©
Q0605	B-5 ©
Q0606	B-4 ©
Q0701	A-3 ©
Q0801	E-9 Ⓕ
Q0802	D-9 Ⓕ
Transistor & Resistor	
QR0701	A-13 Ⓕ
Integrated Circuit	
IC0101	D-13 Ⓕ
IC0401	B-9 Ⓕ
IC0406	B-6 ©
IC0407	B-7 ©
IC0601	C-10 Ⓕ
IC0602	B-10 Ⓕ
IC0604	A-11 Ⓕ
IC0701	B-13 Ⓕ
Test Point	
TP2	A-12 Ⓕ
TP3	B-12 Ⓕ
TP4	C-13 Ⓕ
TP12	D-12 Ⓕ
TP13	B-10 Ⓕ
TP14	A-10 Ⓕ
TP15	B-10 Ⓕ
TP17	A-10 Ⓕ
TP18	C-9 Ⓕ
TP19	C-9 Ⓕ
Adjustment	
VR0101	D-13 Ⓕ
VR0102	C-3 ©
VR0104	D-11 Ⓕ
VR0105	D-13 Ⓕ
VR0106	A-10 Ⓕ
VR0107	C-4 ©
VR0401	B-10 Ⓕ
VR0402	B-8 Ⓕ
VR0403	A-8 Ⓕ
VR0601	D-4 ©
VR0602	C-10 Ⓕ
VR0603	C-10 Ⓕ
VR0701	A-12 Ⓕ
VR0702	A-13 Ⓕ
Connector	
P0001	D-7 ©
P0001	D-8 Ⓕ
P0002	D-6 ©
P0002	D-9 Ⓕ
P0003	A-6 ©
P0003	A-9 Ⓕ
P0004	A-5 ©
P0004	A-10 Ⓕ
P0005	B-1 ©
P0005	B-14 Ⓕ
P0006	E-6 ©
P0006	E-9 Ⓕ
P0007	E-7 ©
P0007	E-8 Ⓕ
P0008	E-6 ©
P0008	E-8 Ⓕ

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

3-22. Hi-Fi HEAD AMP SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE   MAIN SIGNAL PATH IN PLAYBACK MODE



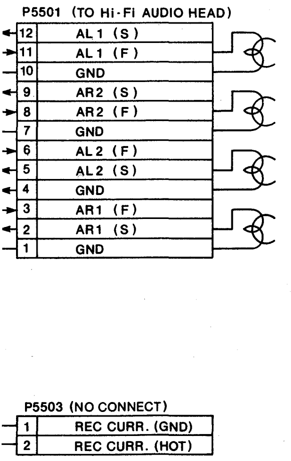
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
Q5501 XN6401
(SW4 Ⓗ : ON)
(SW1 Ⓗ : ON)
R5502 1000
R5503 2700
R5504 8200
C5501 1
Q5502 2SD1328 (REC SW4 Ⓗ / P.B SW4 Ⓛ : ON)
R5540 470
Q5503 2SD1328 (P.B Ⓗ : ON)
R5505 3300
C5503 1
R5501 1500
C5502 0.047
R5508 1000
C5530 0.047
QR5501 FMG1
C5526 0.022
C5527 0.022
R5506 10K
R5510 8200
Q5504 2SD1328 (REC SW1 Ⓗ / P.B SW1 Ⓛ : ON)
R5509 2700
R5507 1500
C5504 0.047
(SW4 Ⓛ : ON)
(SW1 Ⓛ : ON)
R5536 3300
QR5504 XN1113
Q5505 2SD1328 (P.B Ⓗ : ON)
R5511 3300
R5512 10K
R5537 3300
C5531 0.047
R5531 10K
R5541 470
R5514 1500
C5506 0.047
R5515 1000
R5520 1500
C5529 0.022
C5508 0.047
Q5506 XN6401
(SW2 Ⓗ : ON)
(SW3 Ⓗ : ON)
QR5502 FMG1
C5528 0.022
R5519 10K
R5521 1000
(SW2 Ⓛ : ON)
(SW3 Ⓛ : ON)
QR5505 XN1113
R5525 10K
R5538 3300
R5539 3300
R5516 2700
R5517 8200
Q5507 2SD1328 (REC SW2 Ⓗ / P.B SW2 Ⓛ : ON)
C5505 1
C5507 1
R5542 470
R5543 470
Q5508 2SD1328 (P.B Ⓗ : ON)
R5518 3300
Q5509 2SD1328 (REC SW3 Ⓗ / P.B SW3 Ⓛ : ON)
R5522 2700
R5523 8200
C5532 0.047
Q5510 2SD1328 (P.B Ⓗ : ON)
R5524 3300
C5533 0.047
R5513 10
P5501 (TO Hi-Fi AUDIO HEAD)
12 AL 1 (S)
11 AL 1 (F)
10 GND
9 AR 2 (S)
8 AR 2 (F)
7 GND
6 AL 2 (F)
5 AL 2 (S)
4 GND
3 AR 1 (F)
2 AR 1 (S)
1 GND
P5503 (NO CONNECT)
1 REC CURR. (GND)
2 REC CURR. (HOT)
(TO Hi-Fi AUDIO) P5502
P4503-13 SW 2 13
P4503-12 SW 3 12
P4503-11 SW 1 11
P4503-10 REC AMP OUT Ⓐ 10
P4503-9 SW 4 9
P4503-8 D REC Ⓗ 8
P4503-7 H.A SW 7
P4503-6 REC AMP OUT Ⓑ 6
P4503-5 H SW 5
P4503-4 ——— 4
P4503-3 P.B 5V 3
P4503-2 P.B FM 2
P4503-1 GND 1
R5526 10K
C5512 1800P
C5514 1800P
C5513 0.01
C5515 0.01
C5518 1800P
C5520 1800P
C5519 0.01
C5521 0.01
HA.SW
HL
HH
GND
LL
LH
H.SW
AMP
H.SW
HA.SW
PEAKING
AGC
DET
VCC
ENV DET OFF Ⓗ
GND
IC5501 AN3311S
R5535 1500
C5509 6V47
C5510 0.01
L5501 100μ

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.

- LINE IN SIGNAL LEVEL... −10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS (   )
  PLAY...WITHOUT BRACKETS

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
LCD MONITOR Section



P5501 (TO Hi-Fi AUDIO HEAD)
12 AL 1 (S)
11 AL 1 (F)
10 GND
9 AR2 (S)
8 AR2 (F)
7 GND
6 AL 2 (F)
5 AL 2 (S)
4 GND
3 AR1 (F)
2 AR1 (S)
1 GND
P5503 (NO CONNECT)
1 REC CURR. (GND)
2 REC CURR. (HOT)

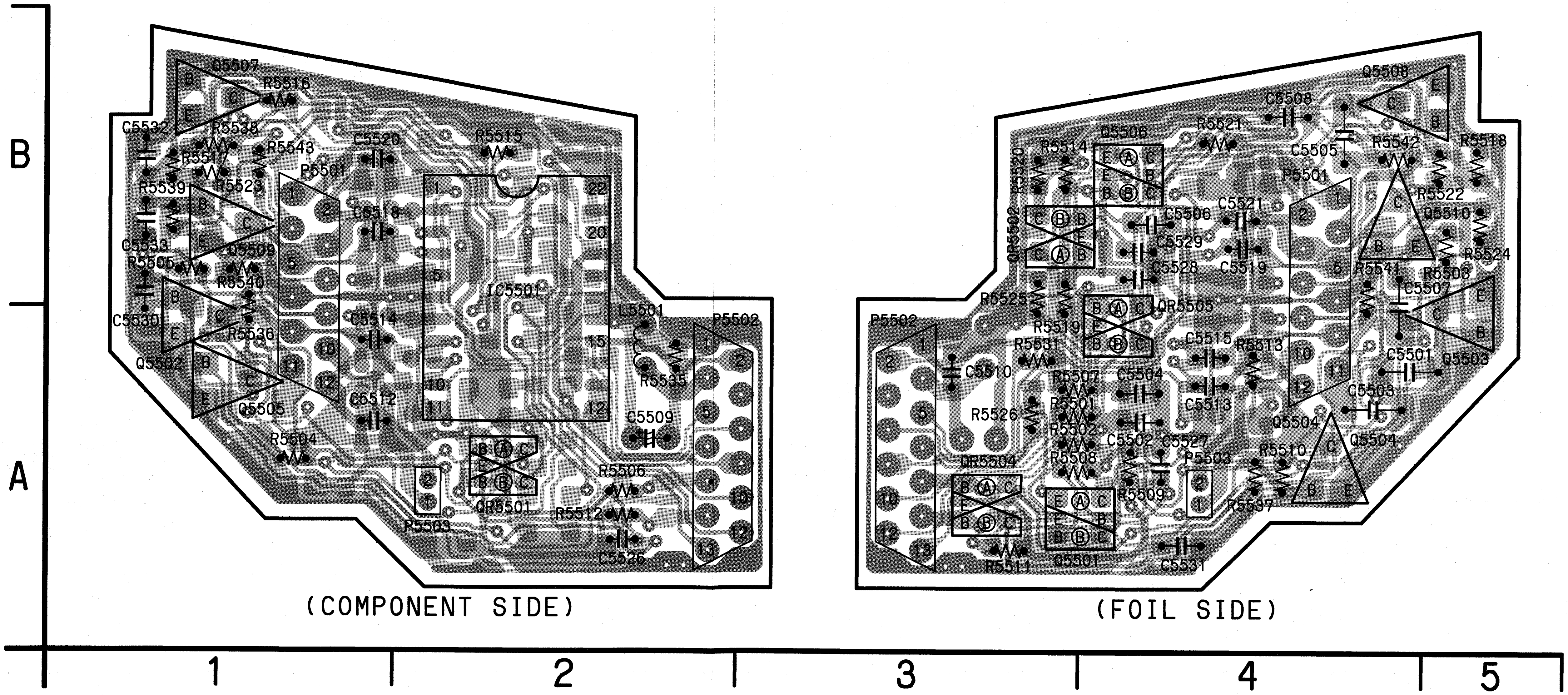
SHOWN ON THIS
ING. WHEN YOU
PARTS LIST.

9

3-23. Hi-Fi HEAD AMP C.B.A. (VEP05133B)

Hi-Fi HEAD AMP C.B.A.		
Transistor		
Q5501	A-3	Ⓕ
Q5502	A-1	Ⓒ
Q5503	A-5	Ⓕ
Q5504	A-4	Ⓕ
Q5505	A-1	Ⓒ
Q5506	B-4	Ⓕ
Q5507	B-1	Ⓒ
Q5508	B-4	Ⓕ
Q5509	B-1	Ⓒ
Q5510	B-5	Ⓕ
Transistor & Resistor		
QR5501	A-2	Ⓒ
QR5502	B-3	Ⓕ
QR5504	A-3	Ⓕ
QR5505	B-4	Ⓕ
Integrated Circuit		
IC5501	B-2	Ⓒ
Connector		
P5501	B-1	Ⓒ
P5501	B-4	Ⓕ
P5502	A-2	Ⓒ
P5502	A-3	Ⓕ
P5503	A-2	Ⓒ
P5503	A-4	Ⓕ

ADDRESS INFORMATION
Ⓒ... COMPONENT SIDE
Ⓕ... FOIL SIDE

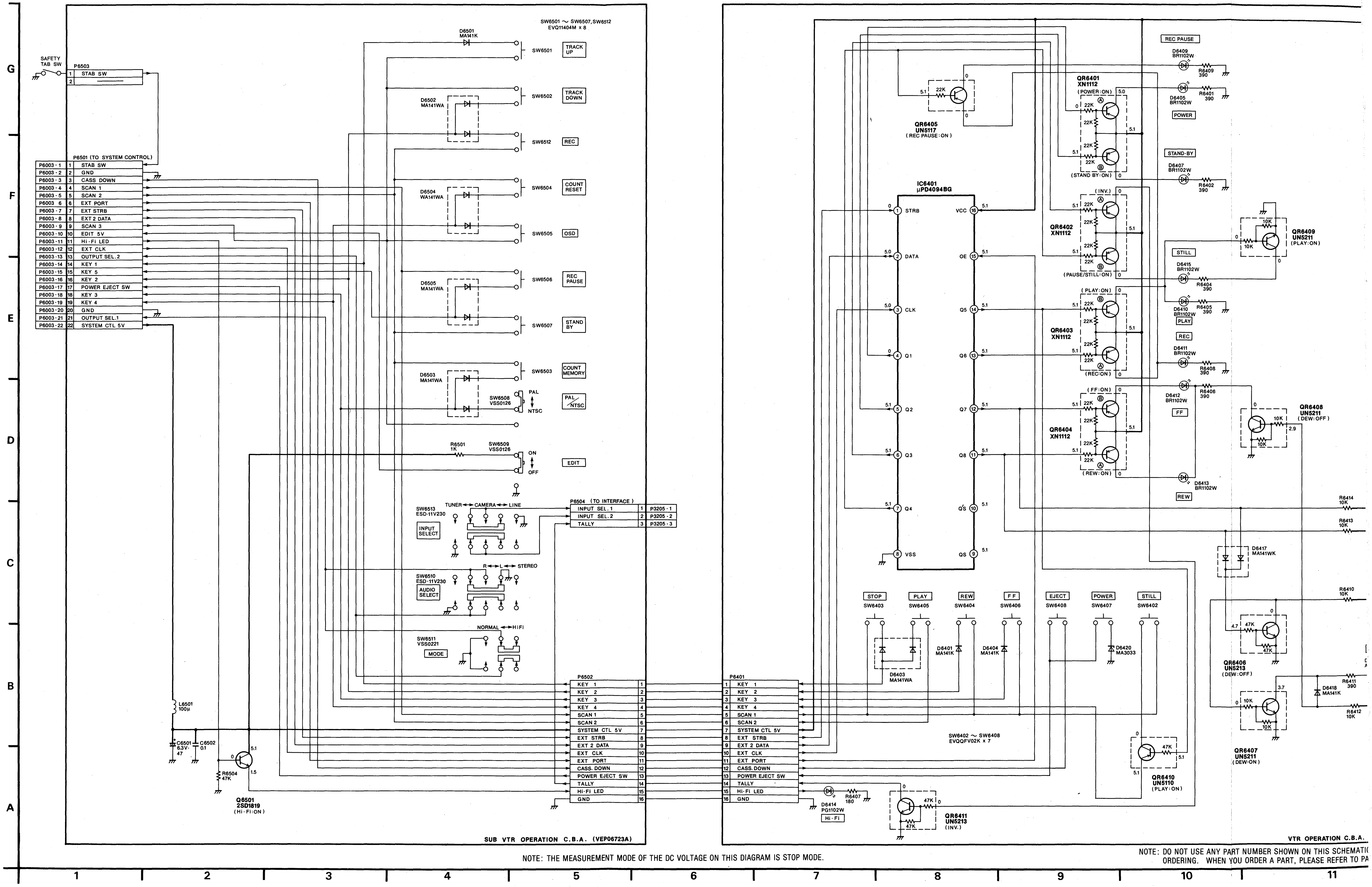


B
A
1
2
3
4
5
Q5507
R5516
C5532
R5538
R5517
R5543
R5523
R5539
C5520
R5515
P5501
C5518
C5533
Q5509
R5505
R5540
IC5501
C5530
R5536
C5514
Q5502
Q5505
C5512
R5504
L5501
R5535
P5502
C5509
R5506
R5512
QR5501
P5503
C5526
Q5508
C5508
R5521
Q5506
R5514
R5520
QR5502
C5505
R5542
R5518
R5522
Q5510
C5506
C5521
C5529
C5528
C5519
R5524
R5541
R5503
C5507
R5525
R5519
QR5505
R5531
C5515
R5513
C5510
R5507
C5504
R5501
R5502
R5526
C5513
C5501
Q5503
C5503
Q5504
C5502
C5527
R5510
R5508
QR5504
P5503
R5509
R5537
R5511
Q5501
C5531

(COMPONENT SIDE)

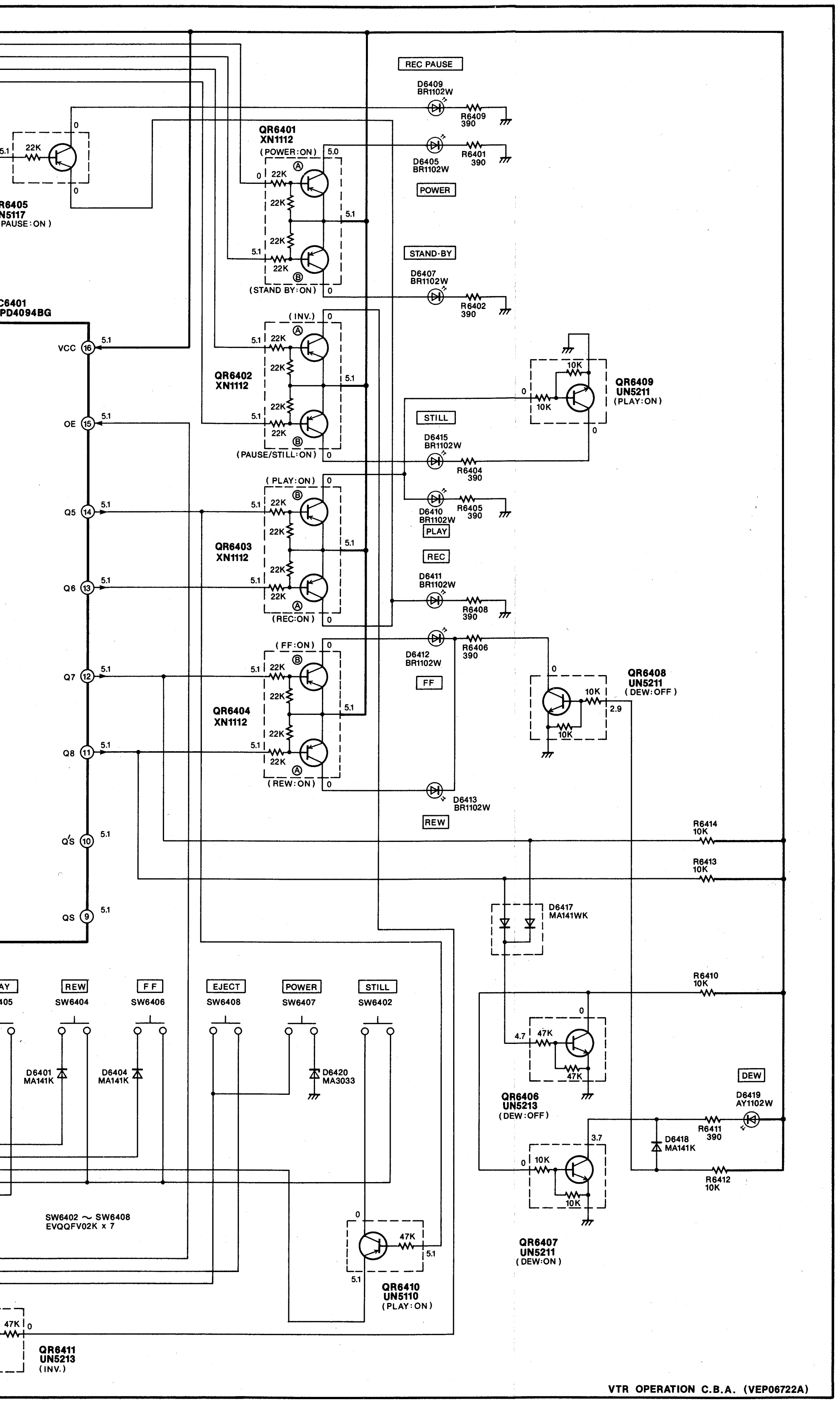
(FOIL SIDE)

3-24. VTR OPERATION & SUB VTR OPERATION SCHEMATIC DIAGRAM


SAFETY TAB SW
P6503
STAB SW
P6501 (TO SYSTEM CONTROL)
P6003-1 STAB SW
P6003-2 GND
P6003-3 CASS DOWN
P6003-4 SCAN 1
P6003-5 SCAN 2
P6003-6 EXT PORT
P6003-7 EXT STRB
P6003-8 EXT 2 DATA
P6003-9 SCAN 3
P6003-10 EDIT 5V
P6003-11 HI-FI LED
P6003-12 EXT CLK
P6003-13 OUTPUT SEL.2
P6003-14 KEY 1
P6003-15 KEY 5
P6003-16 KEY 2
P6003-17 POWER EJECT SW
P6003-18 KEY 3
P6003-19 KEY 4
P6003-20 GND
P6003-21 OUTPUT SEL.1
P6003-22 SYSTEM CTL 5V
SW6501 ~ SW6507, SW6512 EVQ11404M x 8
D6501 MA141K
SW6501 TRACK UP
SW6502 TRACK DOWN
D6502 MA141WA
SW6512 REC
D6504 MA141WA
SW6504 COUNT RESET
SW6505 OSD
D6505 MA141WA
SW6506 REC PAUSE
SW6507 STAND BY
D6503 MA141WA
SW6503 COUNT MEMORY
SW6508 VSS0126
PAL NTSC
R6501 1K
SW6509 VSS0126
ON OFF
EDIT
P6504 (TO INTERFACE)
INPUT SEL.1
INPUT SEL.2
TALLY
P3205-1
P3205-2
P3205-3
SW6513 ESD-11V230
TUNER CAMERA LINE
INPUT SELECT
SW6510 ESD-11V230
R L STEREO
AUDIO SELECT
SW6511 VSS0221
NORMAL HIFI
MODE
P6502
KEY 1
KEY 2
KEY 3
KEY 4
SCAN 1
SCAN 2
SYSTEM CTL 5V
EXT STRB
EXT 2 DATA
EXT CLK
EXT PORT
CASS. DOWN
POWER EJECT SW
TALLY
HI-FI LED
GND
L6501 100µ
C6501 6.3V 47
C6502 0.1
R6504 47K
Q6501 2SD1819 (HI-FI:ON)
SUB VTR OPERATION C.B.A. (VEP06723A)
P6401
QR6405 UN5117 (REC PAUSE:ON)
IC6401 µPD4094BG
STRB
DATA
CLK
Q1
Q2
Q3
Q4
VSS
VCC
OE
Q5
Q6
Q7
Q8
Q'S
QS
QR6401 XN1112 (POWER:ON) (STAND BY:ON)
QR6402 XN1112 (INV.) (PAUSE/STILL:ON)
QR6403 XN1112 (PLAY:ON) (REC:ON)
QR6404 XN1112 (FF:ON) (REW:ON)
REC PAUSE
D6409 BR1102W
R6409 390
D6405 BR1102W
R6401 390
POWER
STAND-BY
D6407 BR1102W
R6402 390
QR6409 UN5211 (PLAY:ON)
STILL
D6415 BR1102W
R6404 390
D6410 BR1102W
R6405 390
PLAY
REC
D6411 BR1102W
R6408 390
D6412 BR1102W
R6406 390
FF
QR6408 UN5211 (DEW:OFF)
D6413 BR1102W
REW
R6414 10K
R6413 10K
D6417 MA141WK
R6410 10K
QR6406 UN5213 (DEW:OFF)
D6418 MA141K
R6411 390
R6412 10K
QR6407 UN5211 (DEW:ON)
STOP SW6403
PLAY SW6405
REW SW6404
FF SW6406
EJECT SW6408
POWER SW6407
STILL SW6402
D6403 MA141WA
D6401 MA141K
D6404 MA141K
D6420 MA3033
SW6402 ~ SW6408 EVQQFV02K x 7
QR6410 UN5110 (PLAY:ON)
D6414 PG1102W
R6407 180
HI-FI
QR6411 UN5213 (INV.)
VTR OPERATION C.B.A.
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11

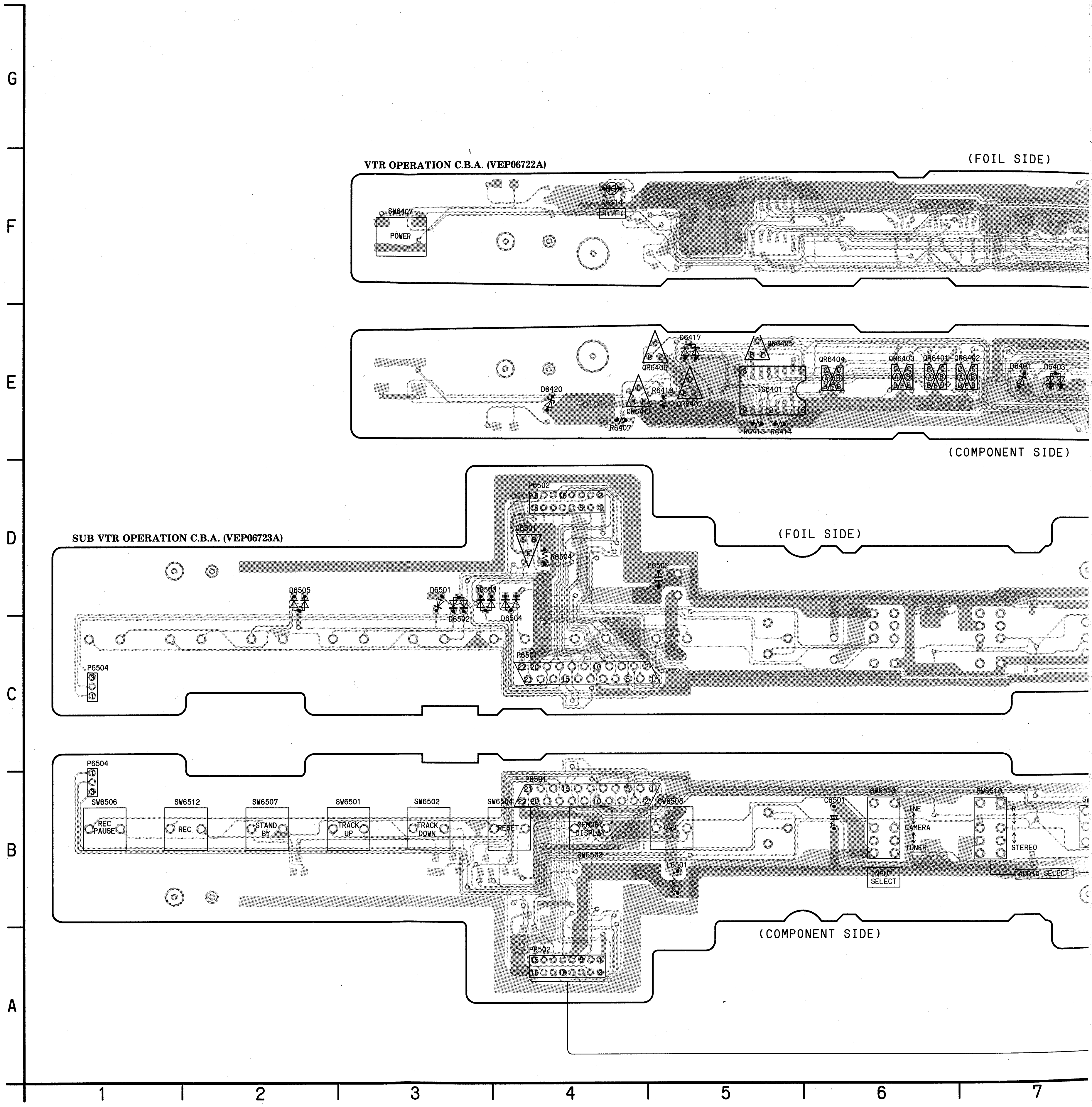
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATI
ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PA


REC PAUSE
D6409 BR1102W
R6409 390
QR6401 XN1112 (POWER:ON)
D6405 BR1102W
R6401 390
POWER
R6405 UN5117 (PAUSE:ON)
STAND-BY
D6407 BR1102W
R6402 390
(STAND BY:ON)
IC6401 μPD4094BG
VCC
OE
Q5
Q6
Q7
Q8
Q'S
QS
(INV.)
QR6402 XN1112
(PAUSE/STILL:ON)
QR6409 UN5211 (PLAY:ON)
STILL
D6415 BR1102W
R6404 390
(PLAY:ON)
D6410 BR1102W
R6405 390
PLAY
QR6403 XN1112
REC
D6411 BR1102W
R6408 390
(REC:ON)
(FF:ON)
D6412 BR1102W
R6406 390
FF
QR6408 UN5211 (DEW:OFF)
QR6404 XN1112
(REW:ON)
D6413 BR1102W
REW
R6414 10K
R6413 10K
D6417 MA141WK
R6410 10K
REW SW6404
FF SW6406
EJECT SW6408
POWER SW6407
STILL SW6402
D6401 MA141K
D6404 MA141K
D6420 MA3033
QR6406 UN5213 (DEW:OFF)
DEW
D6419 AY1102W
R6411 390
D6418 MA141K
R6412 10K
SW6402 ~ SW6408 EVQQFV02K × 7
QR6407 UN5211 (DEW:ON)
QR6410 UN5110 (PLAY:ON)
QR6411 UN5213 (INV.)
VTR OPERATION C.B.A. (VEP06722A)
8
9
10
11

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

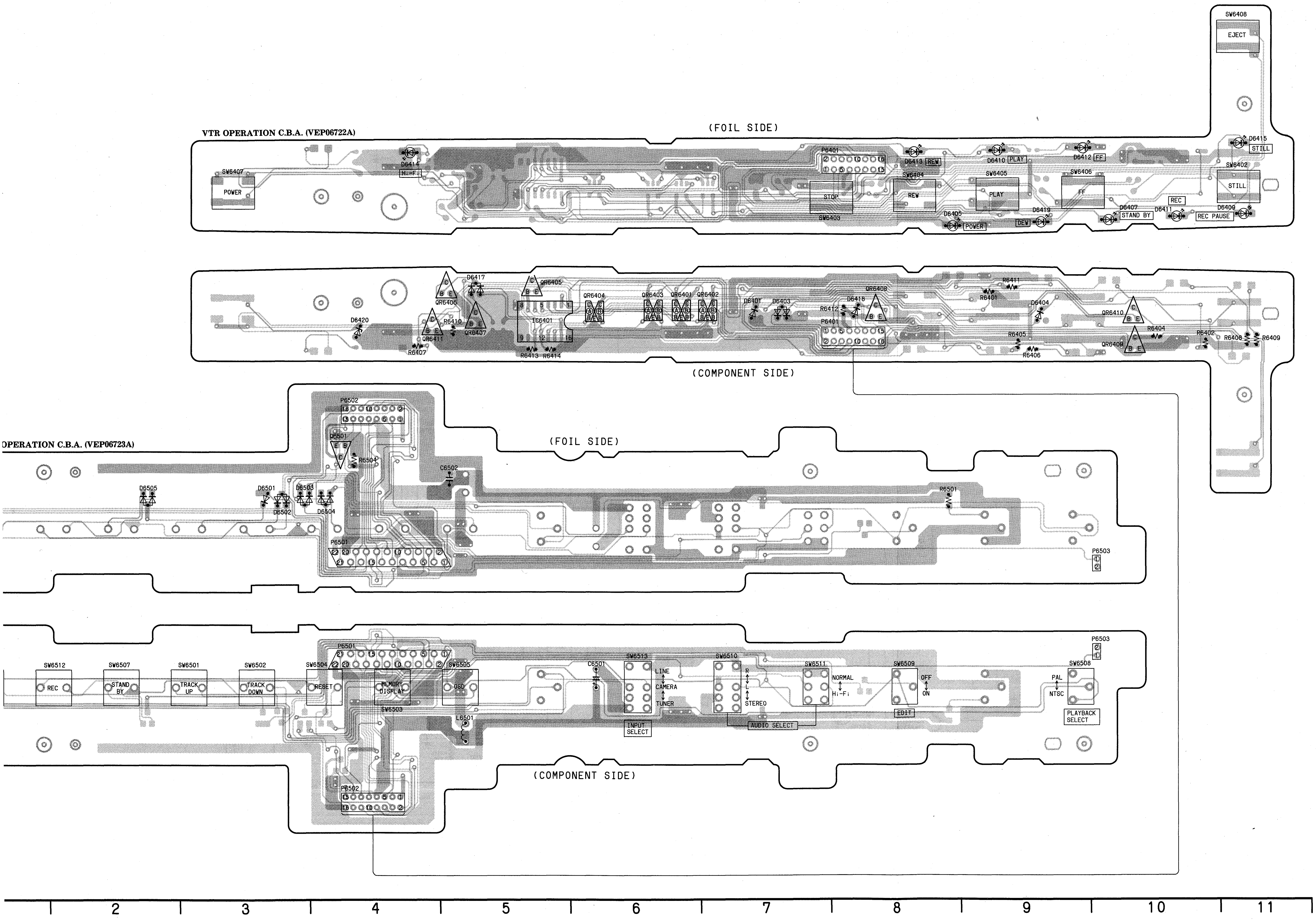
3-25. VTR OPERATION C.B.A. (VEP06722A) & SUB VTR OPERATION C.B.A. (VEP06723A)


G
F
E
D
C
B
A
VTR OPERATION C.B.A. (VEP06722A)
(FOIL SIDE)
SW6407
POWER
D6414
(COMPONENT SIDE)
D6417
QR6406
QR6405
D6420
R6410
QR6411
QR6407
R6407
IC6401
R6413 R6414
QR6404
QR6403
QR6401
QR6402
D6401
D6403
SUB VTR OPERATION C.B.A. (VEP06723A)
(FOIL SIDE)
P6502
Q6501
R6504
C6502
D6505
D6501
D6503
D6502
D6504
P6501
P6504
SW6506
REC PAUSE
SW6512
REC
SW6507
STAND BY
SW6501
TRACK UP
SW6502
TRACK DOWN
SW6504
RESET
MEMORY DISPLAY
SW6503
SW6505
OSD
C6501
L6501
SW6513
LINE
CAMERA
TUNER
INPUT SELECT
SW6510
R
L
STEREO
AUDIO SELECT
(COMPONENT SIDE)
1
2
3
4
5
6
7

OPERATION C.B.A. (VEP06722A) & SUB VTR OPERATION C.B.A. (VEP06723A)

VTR OPERATION C.B.A. & SUB VTR OPERATION C.B.A.	
Transistor	
Q6501	D-4 Ⓕ
Transistor & Resistor	
QR6401	E-6 ©
QR6402	E-7 ©
QR6403	E-6 ©
QR6404	E-6 ©
QR6405	E-5 ©
QR6406	E-5 ©
QR6407	E-5 ©
QR6408	E-8 ©
QR6409	E-10 ©
QR6410	E-10 ©
QR6411	E-4 ©
Integrated Circuit	
IC6401	E-5 ©
Connector	
P6401	E-8 ©
P6401	F-8 Ⓕ
P6501	B-4 ©
P6501	C-4 Ⓕ
P6502	A-4 ©
P6502	D-4 Ⓕ
P6503	B-10 ©
P6503	C-10 Ⓕ
P6504	C-1 ©
P6504	C-1 Ⓕ

ADDRESS INFORMATION
©... COMPONENT SIDE
Ⓕ... FOIL SIDE

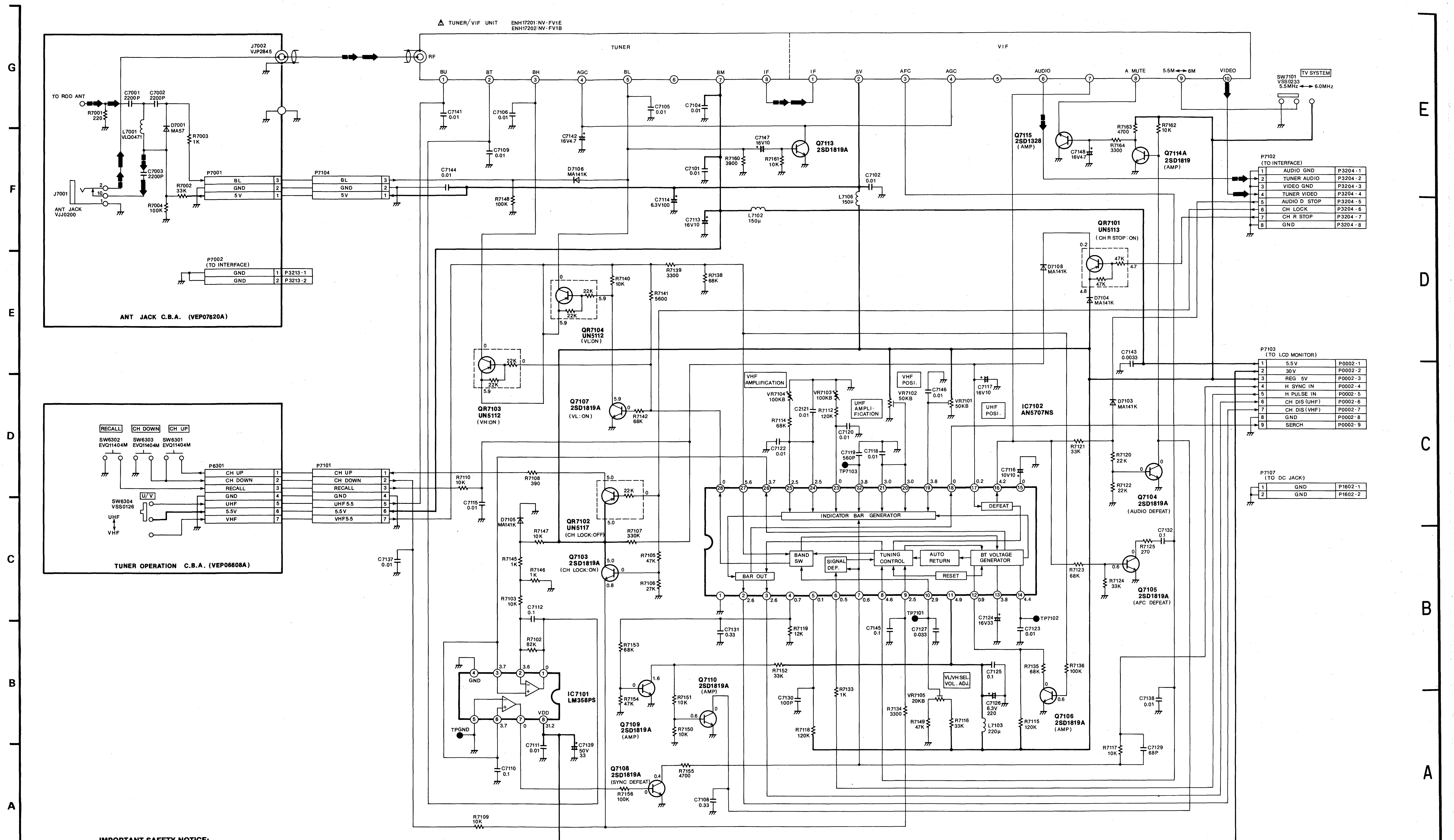

VTR OPERATION C.B.A. (VEP06722A)
(FOIL SIDE)
SW6407
POWER
D6414
Hi-Fi
P6401
STOP
SW6403
D6413
REW
SW6404
REW
D6405
POWER
D6410
PLAY
SW6405
PLAY
DEW
D6419
D6412
FF
SW6406
FF
D6407
STAND BY
D6411
REC
D6409
REC PAUSE
SW6402
STILL
D6415
STILL
SW6408
EJECT
(COMPONENT SIDE)
D6420
QR6406
D6417
QR6411
R6407
R6410
QR6407
QR6405
IC6401
R6413
R6414
QR6404
QR6403
QR6401
QR6402
D6401
D6403
R6412
D6418
QR6408
P6401
R6411
R6401
D6404
R6405
R6406
QR6410
R6404
QR6409
R6402
R6408
R6409
OPERATION C.B.A. (VEP06723A)
(FOIL SIDE)
P6502
Q6501
R6504
C6502
D6505
D6501
D6502
D6503
D6504
P6501
R6501
P6503
SW6512
REC
SW6507
STAND BY
SW6501
TRACK UP
SW6502
TRACK DOWN
SW6504
RESET
MEMORY DISPLAY
SW6503
SW6505
OSD
L6501
C6501
SW6513
LINE
CAMERA
TUNER
INPUT SELECT
SW6510
R
L
STEREO
AUDIO SELECT
SW6511
NORMAL
Hi-Fi
SW6509
OFF
ON
EDIT
SW6508
PAL
NTSC
PLAYBACK SELECT
(COMPONENT SIDE)
P6502
2
3
4
5
6
7
8
9
10
11

Next Page:
TV DEMODULATOR Section

3-26. TV DEMODULATOR SCHEMATIC DIAGRAM

VIDEO SIGNAL PATH

AUDIO SIGNAL PATH

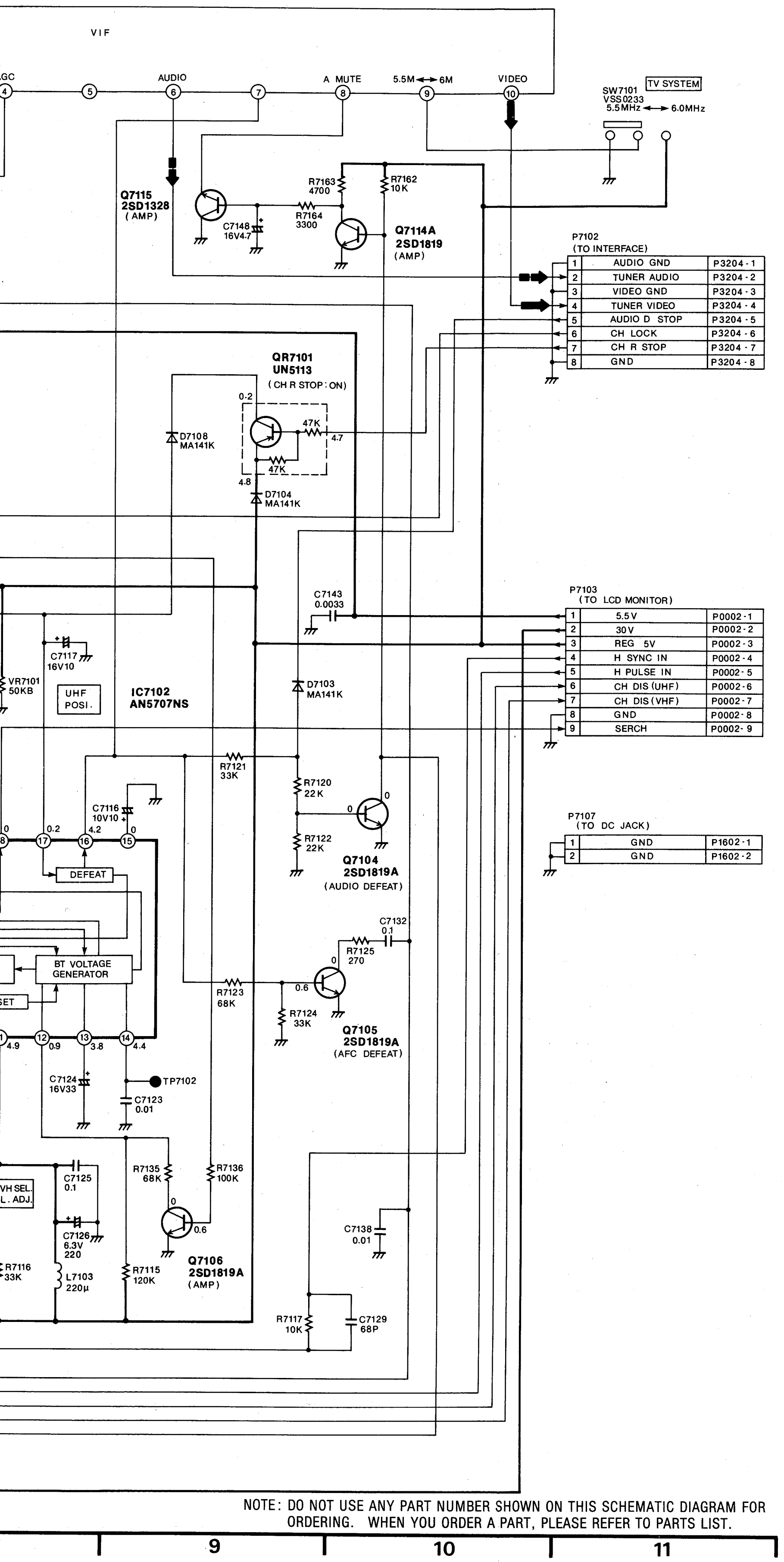

⚠ TUNER/VIF UNIT ENH17201:NV-FV1E ENH17202:NV-FV1B
TUNER
VIF
RF
BU
BT
BH
AGC
BL
BM
IF
5V
AFC
AUDIO
A MUTE
5.5M◄►6M
VIDEO
J7002 VJP2845
TO ROD ANT
R7001 220
C7001 2200P
C7002 2200P
L7001 VLQ0471
D7001 MA57
R7003 1K
C7003 2200P
J7001
ANT JACK VJJ0200
R7002 33K
R7004 100K
P7001
BL
GND
5V
P7104
P7002 (TO INTERFACE)
GND
P3213-1
P3213-2
ANT JACK C.B.A. (VEP07620A)
RECALL
CH DOWN
CH UP
SW6302 EVQ11404M
SW6303 EVQ11404M
SW6301 EVQ11404M
P6301
CH UP
CH DOWN
RECALL
GND
UHF
5.5V
VHF
U/V
SW6304 VSS0126
P7101
UHF 5.5
VHF5.5
TUNER OPERATION C.B.A. (VEP06608A)
C7141 0.01
C7106 0.01
C7109 0.01
C7144 0.01
R7148 100K
C7142 16V4.7
D7106 MA141K
C7105 0.01
C7104 0.01
C7101 0.01
C7114 6.3V100
C7113 16V10
C7147 16V10
R7160 3900
R7161 10K
Q7113 2SD1819A
C7102 0.01
L7106 150μ
L7102 150μ
Q7115 2SD1328 (AMP)
C7148 16V4.7
R7163 4700
R7164 3300
R7162 10K
Q7114A 2SD1819 (AMP)
SW7101 VSS0233 5.5MHz◄►6.0MHz
TV SYSTEM
P7102 (TO INTERFACE)
1 AUDIO GND P3204-1
2 TUNER AUDIO P3204-2
3 VIDEO GND P3204-3
4 TUNER VIDEO P3204-4
5 AUDIO D STOP P3204-5
6 CH LOCK P3204-6
7 CH R STOP P3204-7
8 GND P3204-8
QR7101 UN5113 (CH R STOP:ON)
47K
D7108 MA141K
D7104 MA141K
R7139 3300
R7138 68K
R7140 10K
R7141 5600
QR7104 UN5112 (VL:ON)
22K
QR7103 UN5112 (VH:ON)
Q7107 2SD1819A (VL:ON)
R7142 68K
C7143 0.0033
P7103 (TO LCD MONITOR)
1 5.5V P0002-1
2 30V P0002-2
3 REG 5V P0002-3
4 H SYNC IN P0002-4
5 H PULSE IN P0002-5
6 CH DIS (UHF) P0002-6
7 CH DIS (VHF) P0002-7
8 GND P0002-8
9 SERCH P0002-9
VHF AMPLIFICATION
VR7104 100KB
VR7103 100KB
R7114 68K
C2121 0.01
R7112 120K
UHF AMPLI-FICATION
VHF POSI.
VR7102 50KB
C7146 0.01
VR7101 50KB
UHF POSI.
C7117 16V10
IC7102 AN5707NS
D7103 MA141K
R7121 33K
R7120 22K
R7122 22K
Q7104 2SD1819A (AUDIO DEFEAT)
P7107 (TO DC JACK)
1 GND P1602-1
2 GND P1602-2
C7122 0.01
C7120 0.01
C7119 560P
C7118 0.01
TP7103
C7116 10V10
INDICATOR BAR GENERATOR
DEFEAT
BAND SW
SIGNAL DEF.
TUNING CONTROL
AUTO RETURN
BT VOLTAGE GENERATOR
RESET
BAR OUT
C7132 0.1
R7125 270
R7123 68K
R7124 33K
Q7105 2SD1819A (AFC DEFEAT)
R7110 10K
R7108 390
C7115 0.01
D7105 MA141K
QR7102 UN5117 (CH LOCK:OFF)
R7147 10K
R7107 330K
R7145 1K
R7146 1K
Q7103 2SD1819A (CH LOCK:ON)
R7105 47K
R7106 27K
R7103 10K
C7112 0.1
R7102 82K
C7137 0.01
IC7101 LM358PS
GND
VDD
TPGND
C7111 0.01
C7139 50V 33
C7110 0.1
C7131 0.33
R7119 12K
R7153 68K
C7145 0.1
TP7101
C7127 0.033
C7124 16V33
TP7102
C7123 0.01
R7152 33K
Q7110 2SD1819A (AMP)
R7154 47K
R7151 10K
R7150 10K
Q7109 2SD1819A (AMP)
C7130 100P
R7133 1K
R7118 120K
VL/VH SEL VOL. ADJ.
VR7105 20KB
R7134 3300
R7149 47K
R7116 33K
C7125 0.1
C7126 6.3V 220
L7103 220μ
R7135 68K
R7136 100K
R7115 120K
Q7106 2SD1819A (AMP)
C7138 0.01
R7117 10K
C7129 68P
Q7108 2SD1819A (SYNC DEFEAT)
R7155 4700
R7156 100K
C7108 0.33
R7109 10K
G
F
E
D
C
B
A

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

1 2 3 4 5 6 7 8 9 10 11


VIF
AGC
AUDIO
A MUTE
5.5M ◄► 6M
VIDEO
SW7101
VSS0233
5.5MHz ◄► 6.0MHz
TV SYSTEM
Q7115
2SD1328
(AMP)
C7148
16V47
R7163
4700
R7164
3300
R7162
10K
Q7114A
2SD1819
(AMP)
P7102
(TO INTERFACE)
1 AUDIO GND P3204-1
2 TUNER AUDIO P3204-2
3 VIDEO GND P3204-3
4 TUNER VIDEO P3204-4
5 AUDIO D STOP P3204-5
6 CH LOCK P3204-6
7 CH R STOP P3204-7
8 GND P3204-8
QR7101
UN5113
(CH R STOP: ON)
47K
47K
D7108
MA141K
D7104
MA141K
C7143
0.0033
P7103
(TO LCD MONITOR)
1 5.5V P0002-1
2 30V P0002-2
3 REG 5V P0002-3
4 H SYNC IN P0002-4
5 H PULSE IN P0002-5
6 CH DIS (UHF) P0002-6
7 CH DIS (VHF) P0002-7
8 GND P0002-8
9 SERCH P0002-9
C7117
16V10
VR7101
50KB
UHF
POSI.
IC7102
AN5707NS
D7103
MA141K
R7121
33K
R7120
22K
R7122
22K
Q7104
2SD1819A
(AUDIO DEFEAT)
C7116
10V10
DEFEAT
P7107
(TO DC JACK)
1 GND P1602-1
2 GND P1602-2
C7132
0.1
R7125
270
BT VOLTAGE
GENERATOR
R7123
68K
R7124
33K
Q7105
2SD1819A
(AFC DEFEAT)
C7124
16V33
C7123
0.01
TP7102
R7135
68K
R7136
100K
C7125
0.1
VH SEL.
L. ADJ
C7126
6.3V
220
L7103
220μ
R7116
33K
R7115
120K
Q7106
2SD1819A
(AMP)
C7138
0.01
R7117
10K
C7129
68P

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

9
10
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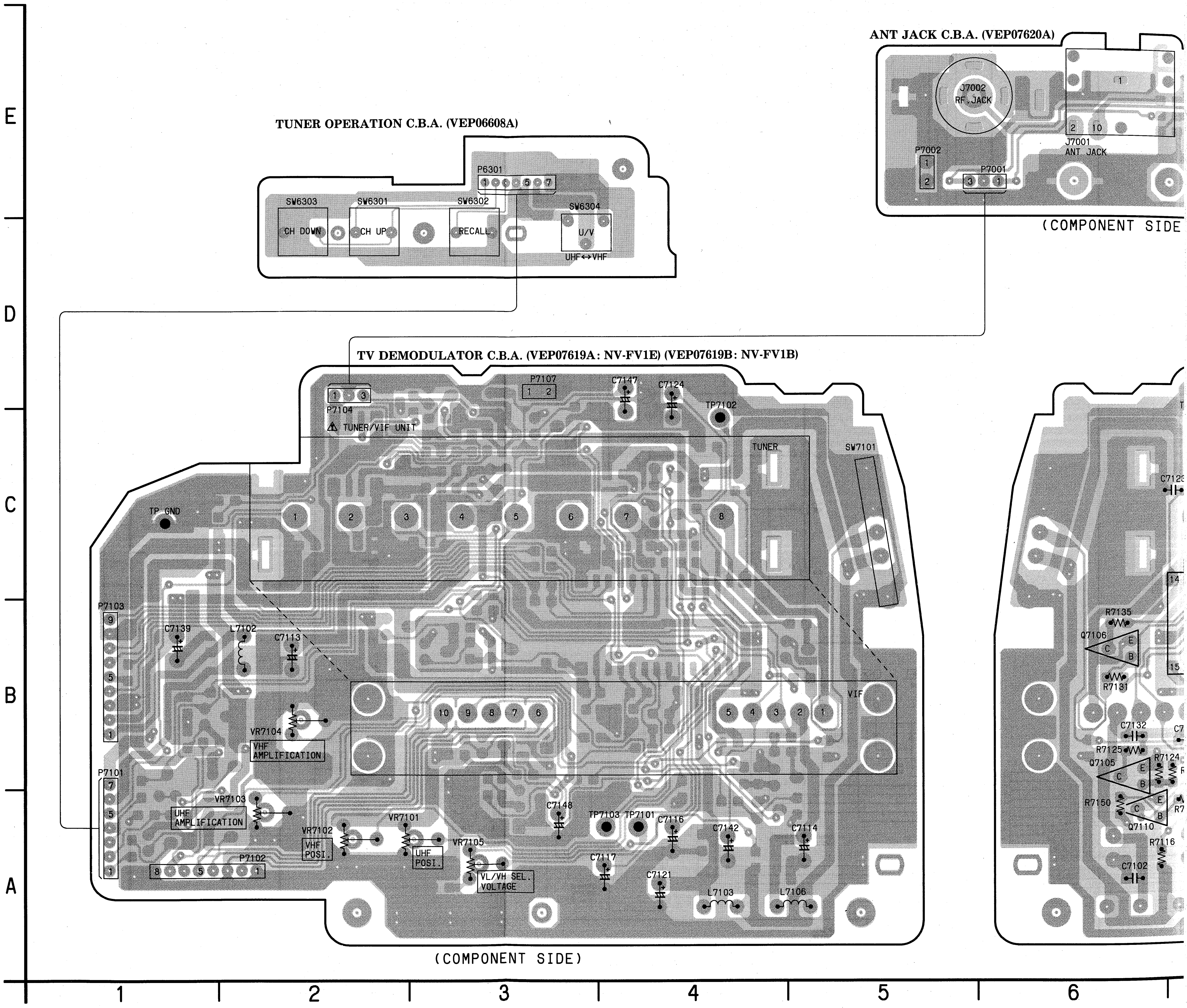
3-27. TV DEMODULATOR C.B.A. (VEP07619A: NV-FV1E) (VEP07619B: NV-FV1B)


ANT JACK C.B.A. (VEP07620A)
J7002
RF. JACK
J7001
ANT JACK
P7002
P7001
(COMPONENT SIDE
TUNER OPERATION C.B.A. (VEP06608A)
P6301
SW6303
SW6301
SW6302
SW6304
CH DOWN
CH UP
RECALL
U/V
UHF ↔ VHF
TV DEMODULATOR C.B.A. (VEP07619A: NV-FV1E) (VEP07619B: NV-FV1B)
P7104
⚠ TUNER/VIF UNIT
P7107
C7147
C7124
TP7102
TUNER
SW7101
TP GND
P7103
C7139
L7102
C7113
VIF
VR7104
VHF AMPLIFICATION
P7101
VR7103
UHF AMPLIFICATION
VR7102
VHF POSI.
VR7101
UHF POSI.
VR7105
VL/VH SEL. VOLTAGE
P7102
C7148
TP7103
TP7101
C7116
C7142
C7114
C7117
C7121
L7103
L7106
(COMPONENT SIDE)
R7135
Q7106
R7131
C7132
R7125
R7124
Q7105
R7150
Q7110
R7116
C7102
E
D
C
B
A
1
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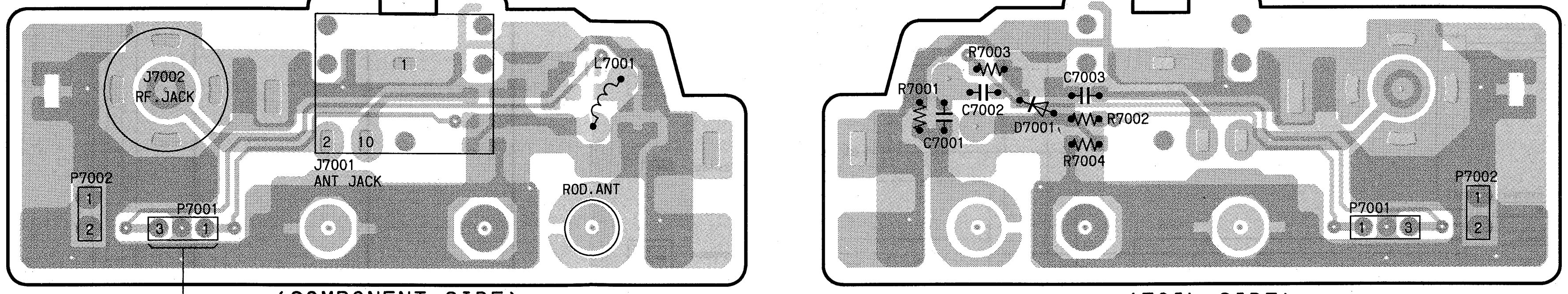
EP07619A: NV-FV1E) (VEP07619B: NV-FV1B)

ANT JACK C.B.A. (VEP07620A)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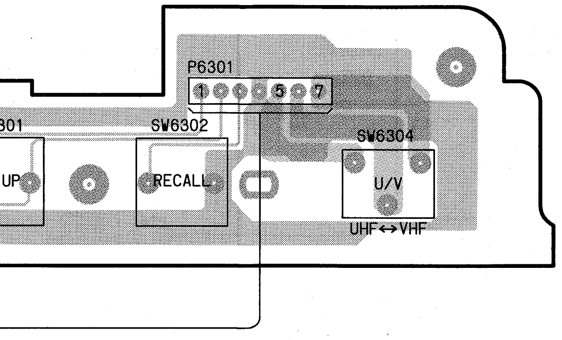
RF. JACK
L7001
J7001
ANT JACK
P7002
P7001
ROD. ANT
R7003
R7001
C7002
C7001
D7001
C7003
R7002
R7004

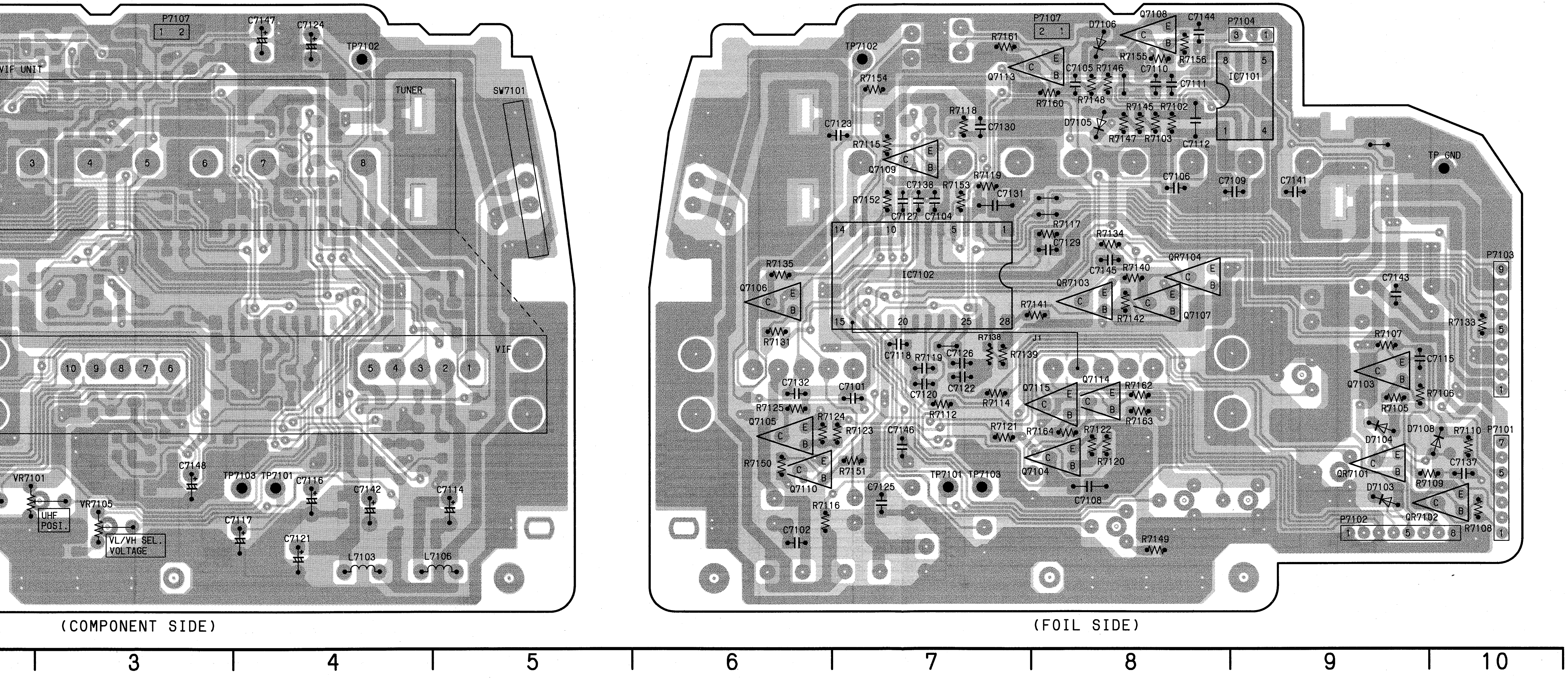
(COMPONENT SIDE)

(FOIL SIDE)

TION C.B.A. (VEP06608A)


P6301
SW6302
SW6304
UP
RECALL
U/V
UHF↔VHF

DEMODULATOR C.B.A. (VEP07619A: NV-FV1E) (VEP07619B: NV-FV1B)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C7147
C7124
TP7102
VIF UNIT
TUNER
SW7101
VIF
VR7101
VR7105
UHF POSI.
VL/VH SEL. VOLTAGE
C7148
TP7103
TP7101
C7116
C7142
C7114
C7117
C7121
L7103
L7106
IC7101
IC7102
P7104
P7103
P7101
P7102
TP GND
Q7103
Q7104
Q7105
Q7106
Q7107
Q7108
Q7109
Q7110
Q7113
Q7114
Q7115
QR7101
QR7102
QR7103
QR7104
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(COMPONENT SIDE)

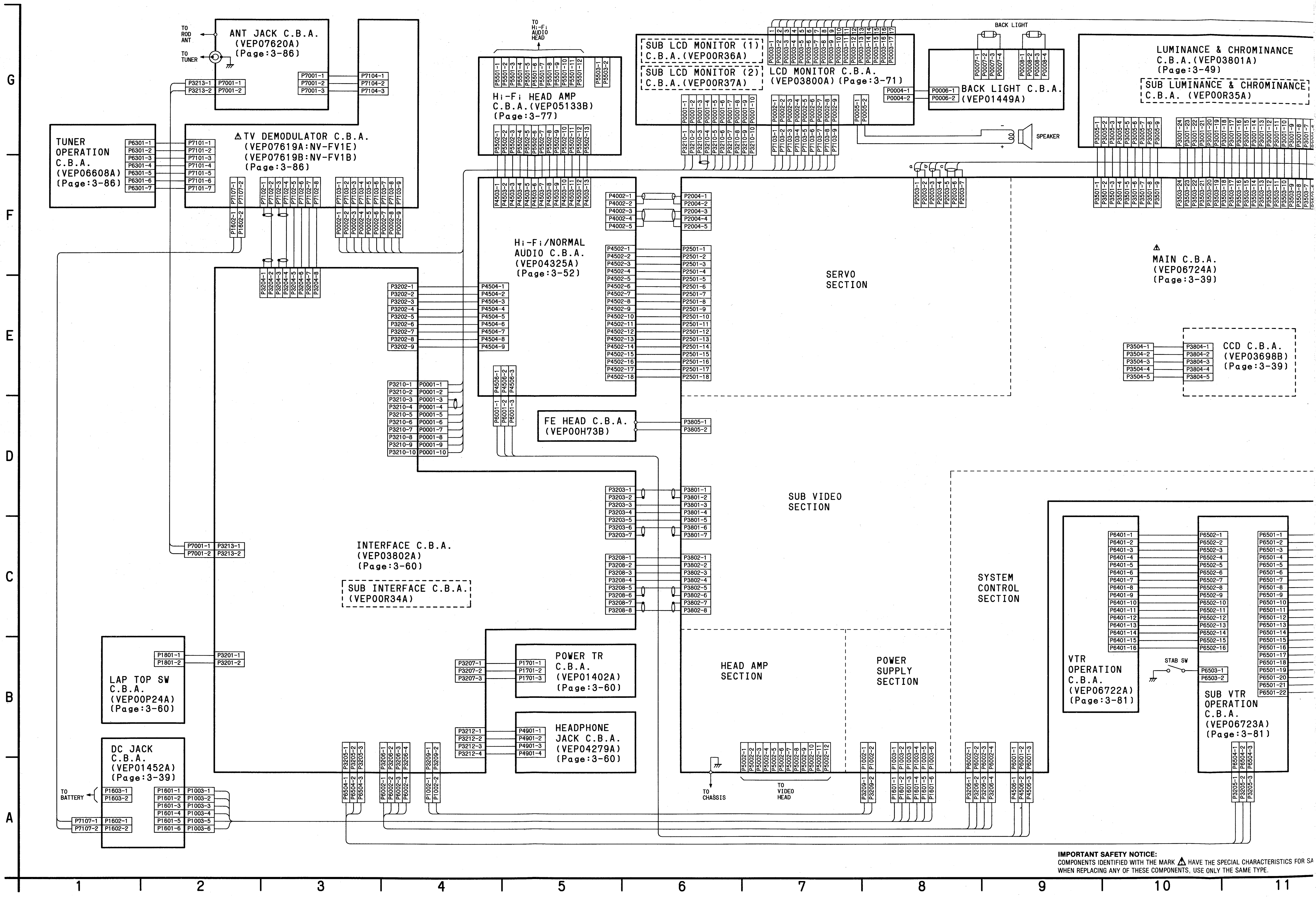
(FOIL SIDE)

TV DEMODULATOR C.B.A.

Transistor		
Q7103	B-9	Ⓕ
Q7104	A-8	Ⓕ
Q7105	B-6	Ⓕ
Q7106	B-6	Ⓕ
Q7107	B-8	Ⓕ
Q7108	D-8	Ⓕ
Q7109	C-7	Ⓕ
Q7110	A-6	Ⓕ
Q7113	C-7	Ⓕ
Q7114	B-8	Ⓕ
Q7115	B-8	Ⓕ
Transistor & Resistor		
QR7101	A-9	Ⓕ
QR7102	A-9	Ⓕ
QR7103	B-8	Ⓕ
QR7104	B-8	Ⓕ
Integrated Circuit		
IC7101	C-9	Ⓕ
IC7101	B-7	Ⓕ
Test Point		
TP7101	A-4	Ⓒ
TP7101	A-7	Ⓕ
TP7102	D-4	Ⓒ
TP7102	D-7	Ⓕ
TP7103	A-4	Ⓒ
TP7103	A-7	Ⓕ
TP GND	C-1	Ⓒ
TP GND	C-10	Ⓕ
Adjustment		
VR7101	A-2	Ⓒ
VR7102	A-2	Ⓒ
VR7103	A-2	Ⓒ
VR7104	B-2	Ⓒ
VR7105	A-3	Ⓒ
Connector		
P6301	E-3	
P7001	E-6	Ⓒ
P7001	E-9	Ⓕ
P7002	E-5	Ⓒ
P7002	E-10	Ⓕ
P7101	B-1	Ⓒ
P7101	B-10	Ⓕ
P7102	A-2	Ⓒ
P7102	A-9	Ⓕ
P7103	B-1	Ⓒ
P7103	B-10	Ⓕ
P7104	D-2	Ⓒ
P7104	D-9	Ⓕ
P7107	D-3	Ⓒ
P7107	D-8	Ⓕ

ADDRESS INFORMATION
Ⓒ... COMPONENT SIDE
Ⓕ... FOIL SIDE

3-28. INTERCONNECTION SCHEMATIC DIAGRAM


ANT JACK C.B.A. (VEP07620A) (Page:3-86)
TO ROD ANT
TO TUNER
TUNER OPERATION C.B.A. (VEP06608A) (Page:3-86)
⚠TV DEMODULATOR C.B.A. (VEP07619A:NV-FV1E) (VEP07619B:NV-FV1B) (Page:3-86)
TO Hi-Fi AUDIO HEAD
Hi-Fi HEAD AMP C.B.A.(VEP05133B) (Page:3-77)
Hi-Fi/NORMAL AUDIO C.B.A. (VEP04325A) (Page:3-52)
SUB LCD MONITOR (1) C.B.A.(VEP00R36A)
SUB LCD MONITOR (2) C.B.A.(VEP00R37A)
LCD MONITOR C.B.A. (VEP03800A)(Page:3-71)
BACK LIGHT
BACK LIGHT C.B.A. (VEP01449A)
SPEAKER
LUMINANCE & CHROMINANCE C.B.A.(VEP03801A) (Page:3-49)
SUB LUMINANCE & CHROMINANCE C.B.A. (VEP00R35A)
⚠ MAIN C.B.A. (VEP06724A) (Page:3-39)
SERVO SECTION
CCD C.B.A. (VEP03698B) (Page:3-39)
INTERFACE C.B.A. (VEP03802A) (Page:3-60)
SUB INTERFACE C.B.A. (VEP00R34A)
FE HEAD C.B.A. (VEP00H73B)
SUB VIDEO SECTION
SYSTEM CONTROL SECTION
LAP TOP SW C.B.A. (VEP00P24A) (Page:3-60)
POWER TR C.B.A. (VEP01402A) (Page:3-60)
HEADPHONE JACK C.B.A. (VEP04279A) (Page:3-60)
HEAD AMP SECTION
POWER SUPPLY SECTION
VTR OPERATION C.B.A. (VEP06722A) (Page:3-81)
STAB SW
SUB VTR OPERATION C.B.A. (VEP06723A) (Page:3-81)
DC JACK C.B.A. (VEP01452A) (Page:3-39)
TO BATTERY
TO CHASSIS
TO VIDEO HEAD
G
F
E
D
C
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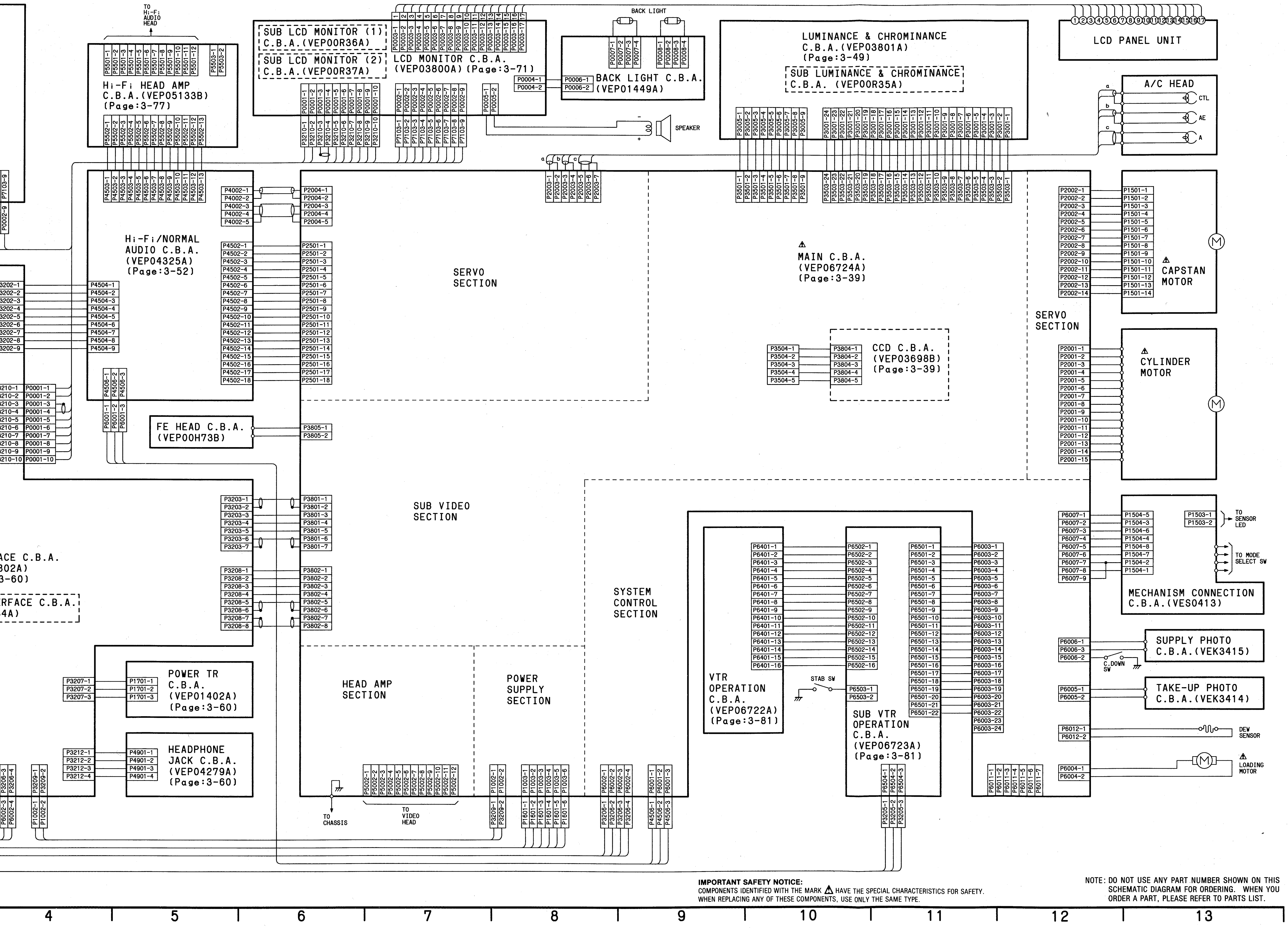
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SA
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

IAGRAM


TO Hi-Fi AUDIO HEAD
Hi-Fi HEAD AMP C.B.A.(VEP05133B) (Page:3-77)
SUB LCD MONITOR (1) C.B.A.(VEP00R36A)
SUB LCD MONITOR (2) C.B.A.(VEP00R37A)
LCD MONITOR C.B.A. (VEP03800A) (Page:3-71)
BACK LIGHT
BACK LIGHT C.B.A. (VEP01449A)
SPEAKER
LUMINANCE & CHROMINANCE C.B.A.(VEP03801A) (Page:3-49)
SUB LUMINANCE & CHROMINANCE C.B.A. (VEP00R35A)
LCD PANEL UNIT
A/C HEAD
CTL
AE
A
Hi-Fi/NORMAL AUDIO C.B.A. (VEP04325A) (Page:3-52)
SERVO SECTION
MAIN C.B.A. (VEP06724A) (Page:3-39)
CAPSTAN MOTOR
CCD C.B.A. (VEP03698B) (Page:3-39)
CYLINDER MOTOR
FE HEAD C.B.A. (VEP00H73B)
SUB VIDEO SECTION
TO SENSOR LED
TO MODE SELECT SW
MECHANISM CONNECTION C.B.A.(VES0413)
ACE C.B.A. 302A) 3-60)
RFACE C.B.A. 4A)
SYSTEM CONTROL SECTION
VTR OPERATION C.B.A. (VEP06722A) (Page:3-81)
STAB SW
SUB VTR OPERATION C.B.A. (VEP06723A) (Page:3-81)
SUPPLY PHOTO C.B.A.(VEK3415)
C.DOWN SW
TAKE-UP PHOTO C.B.A.(VEK3414)
DEW SENSOR
LOADING MOTOR
POWER TR C.B.A. (VEP01402A) (Page:3-60)
HEAD AMP SECTION
POWER SUPPLY SECTION
HEADPHONE JACK C.B.A. (VEP04279A) (Page:3-60)
TO CHASSIS
TO VIDEO HEAD
4
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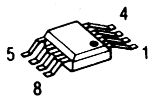
13

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
ICs & TRs INFORMATION Section

3-29. ICs & TRs INFORMATION



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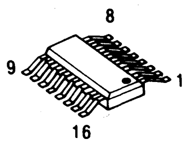

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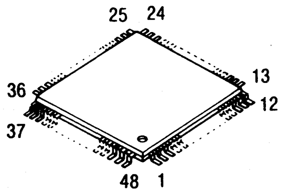
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48 1

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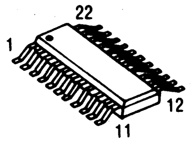
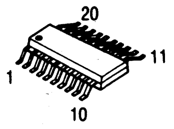


AN3311S
AN5379S



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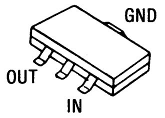

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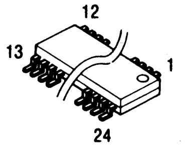

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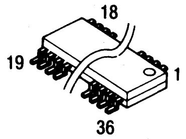

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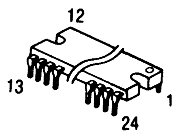

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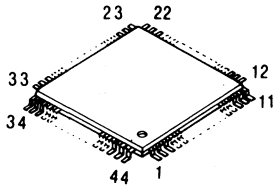
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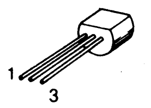

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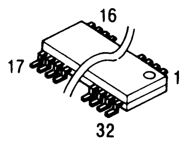

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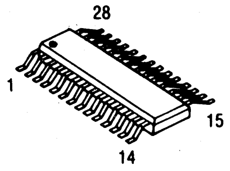

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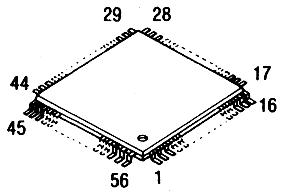
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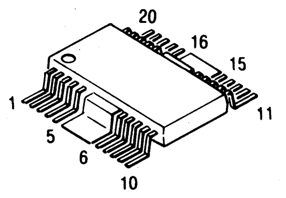
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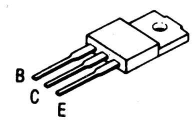

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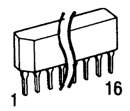

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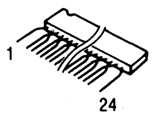

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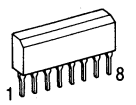

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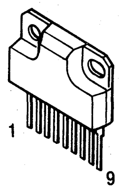
Back Page:
INTERCONNECTION Section



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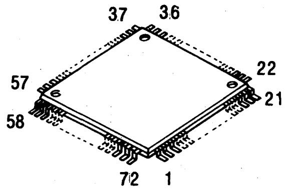
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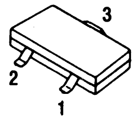

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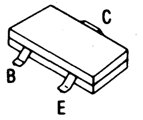

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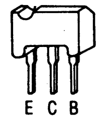

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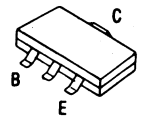

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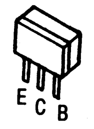

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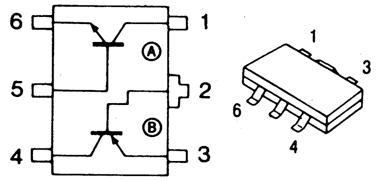
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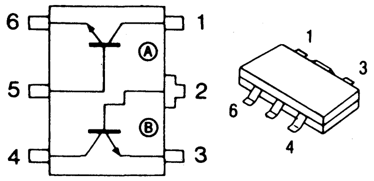
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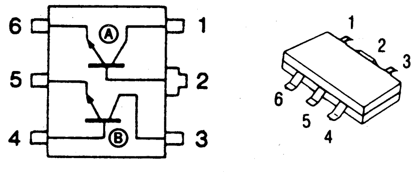
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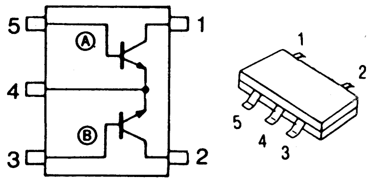
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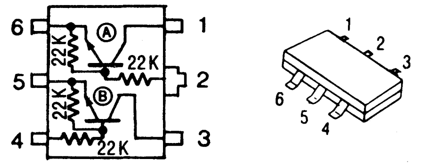
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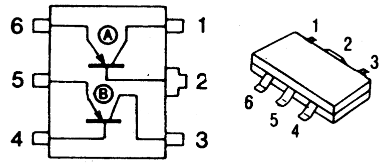
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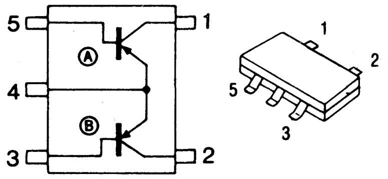
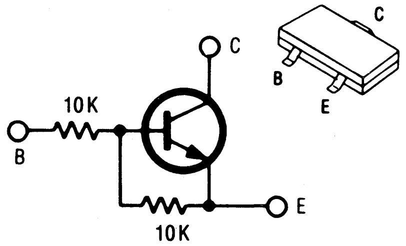
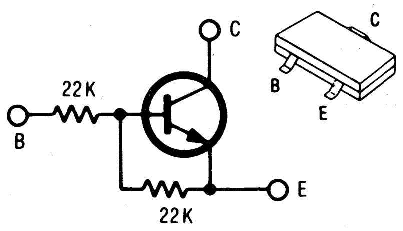
XN6401



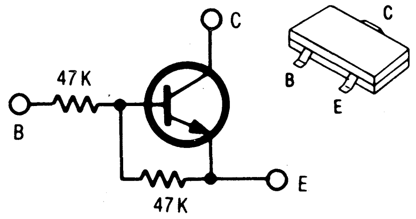
XN1401


C
10K
B
E
10K
C
B
E

UN5211


C
22K
B
E
22K
C
B
E

UN5212


C
47K
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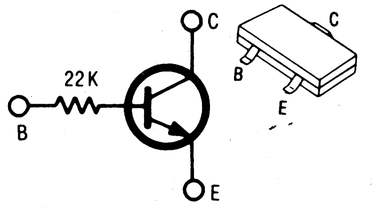
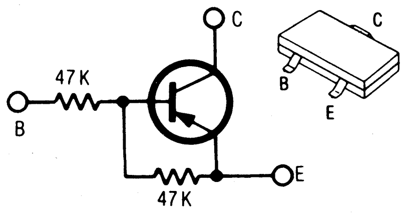
E
47K
C
B
E

UN5213



UN5217


C
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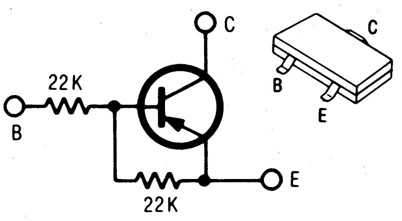
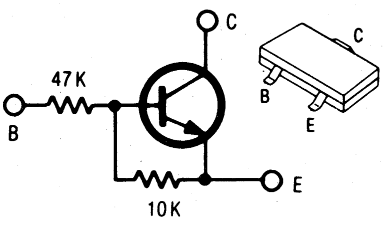
E
47K
C
B
E

UN5113


C
22K
B
22K
E
C
B
E

UN5112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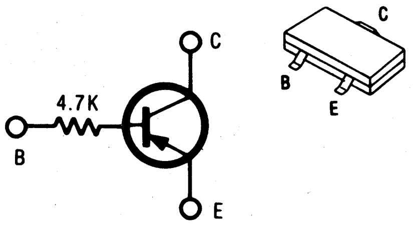
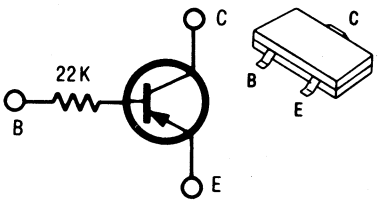
47K
B
10K
E
C
B
E

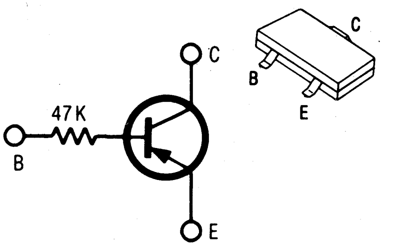
UN521E



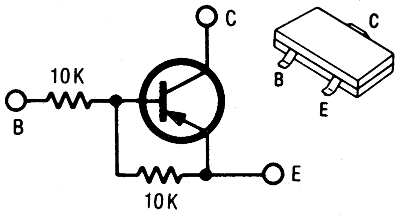
UN5116



UN5117



UN5110


C
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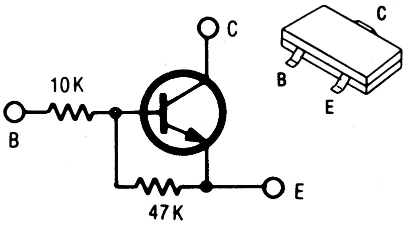
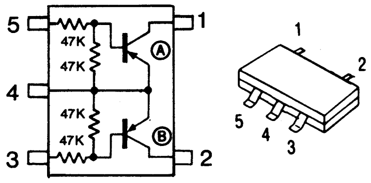
B
10K
E
C
B
E

UN5111
UN2123


C
10K
B
47K
E
C
B
E

UN5214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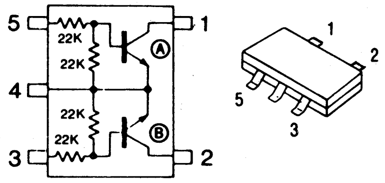
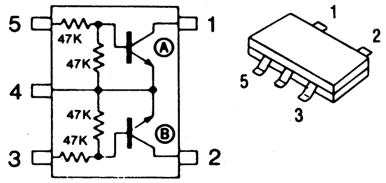
47K
4
47K
47K
3
1
A
B
2
1
2
5
4
3

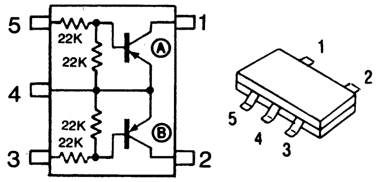
XN1113


5
22K
22K
4
22K
22K
3
1
A
B
2
1
2
5
3

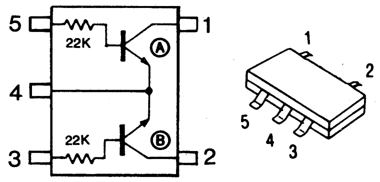
XN1212


5
47K
47K
4
47K
47K
3
1
A
B
2
1
2
5
3

XN1213


5
22K
22K
4
22K
22K
3
1
A
B
2
1
2
5
4
3

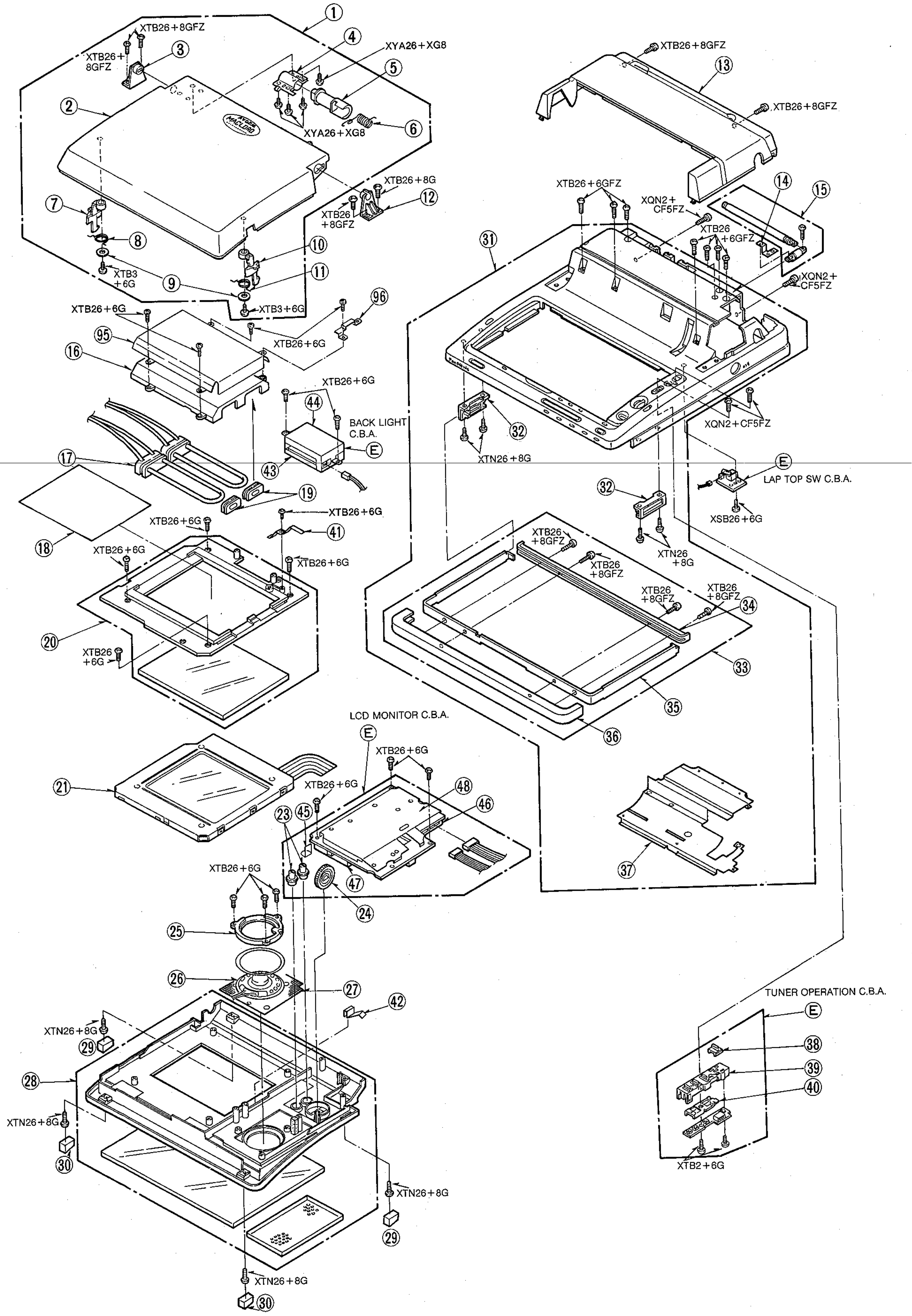
XN1112


5
22K
4
22K
3
1
A
B
2
1
2
5
4
3

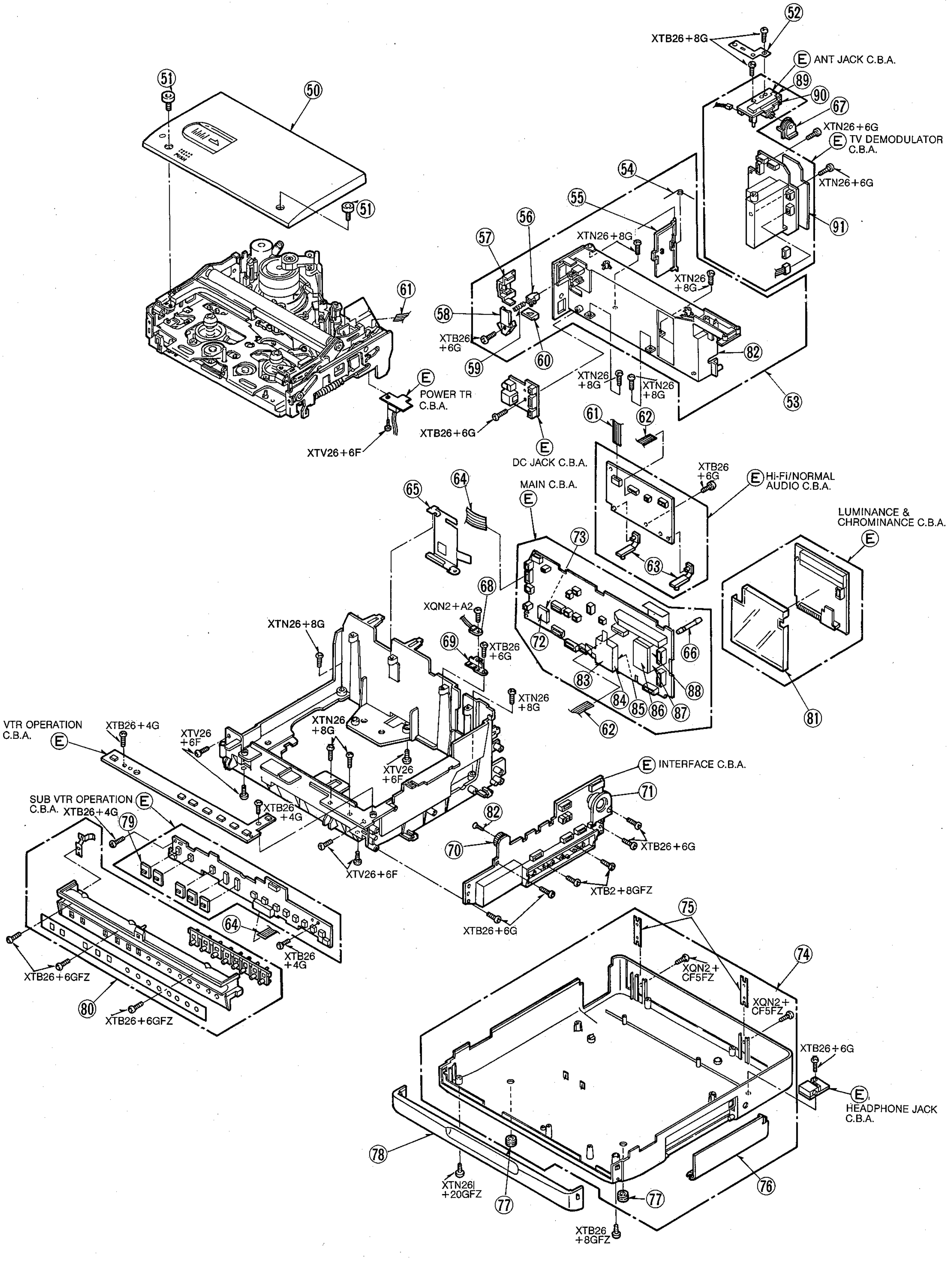
XN1217

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW ❶ CHASSIS & FRAME SECTION (1)

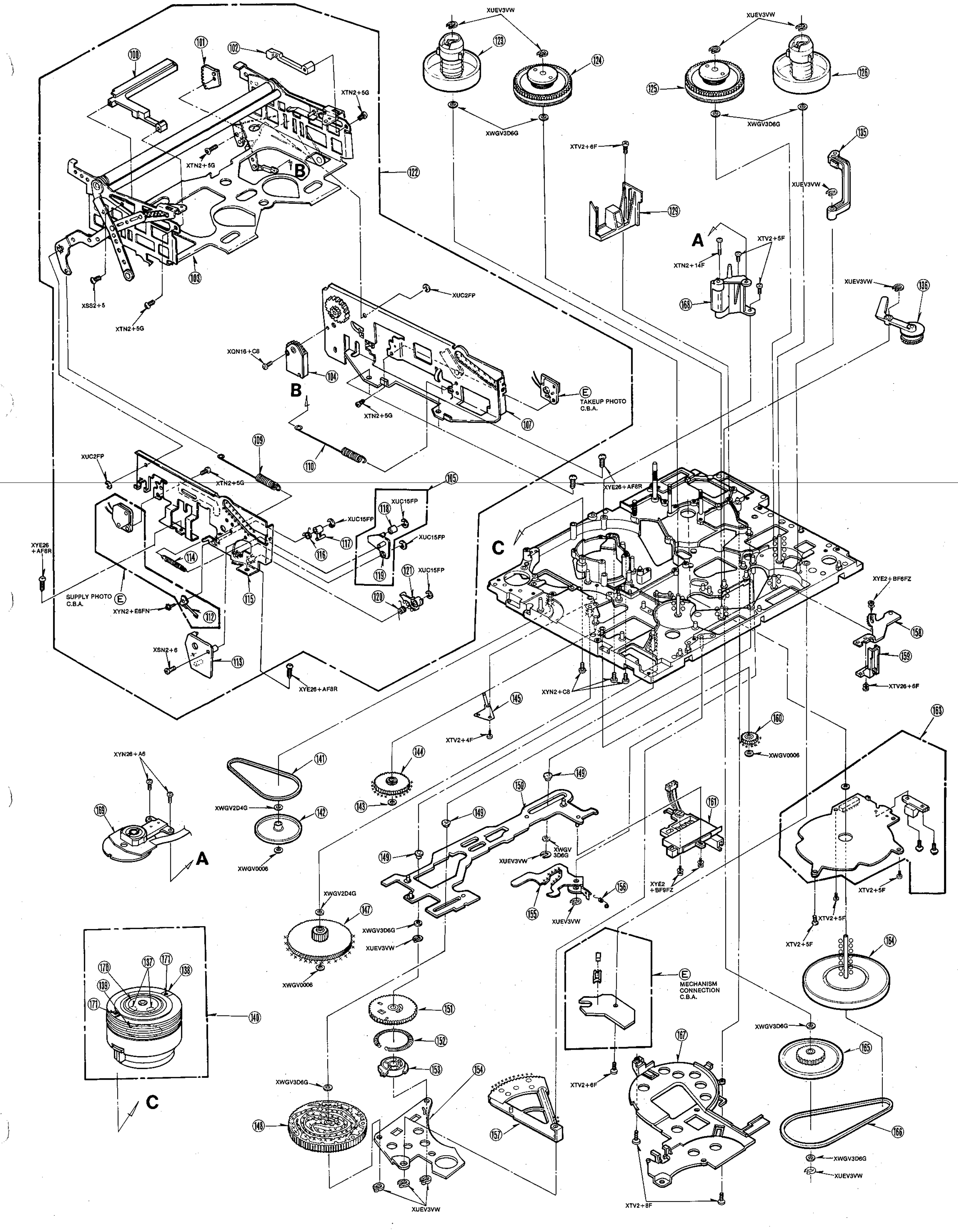

①
XTB26+8GFZ
XTB26+ 8GFZ
③
④
XYA26+XG8
⑤
②
⑥
XYA26+XG8
XTB26+8G
⑫
XTB26 +8GFZ
⑦
⑧
⑩
⑪
XTB3 +6G
⑨
XTB3+6G
XTB26+8GFZ
⑬
XTB26+8GFZ
XTB26+6GFZ
XQN2+ CF5FZ
⑭
⑮
XTB26 +6GFZ
㉛
XQN2+ CF5FZ
XTB26+6G
(96)
(95)
XTB26+6G
⑯
XTB26+6G
㊹
BACK LIGHT C.B.A.
Ⓔ
㊸
⑰
⑲
㉜
XTN26+8G
XQN2+CF5FZ
Ⓔ
LAP TOP SW C.B.A.
XSB26+6G
㉜
XTN26 +8G
⑱
XTB26+6G
XTB26+6G
㊶
XTB26+6G
XTB26+6G
⑳
XTB26 +6G
XTB26 +8GFZ
XTB26 +8GFZ
XTB26 +8GFZ
XTB26 +8GFZ
㉞
㉝
㉟
㊱
㉑
LCD MONITOR C.B.A.
Ⓔ
XTB26+6G
XTB26+6G
㊽
㊻
㉓
㊺
㊼
㉔
㊲
XTB26+6G
㉕
㉖
㉗
㊷
XTN26+8G
㉙
㉘
XTN26+8G
㉚
XTN26+8G
㉙
XTN26+8G
㉚
TUNER OPERATION C.B.A.
Ⓔ
㊳
㊴
㊵
XTB2+6G

❷ CHASSIS & FRAME SECTION (2)



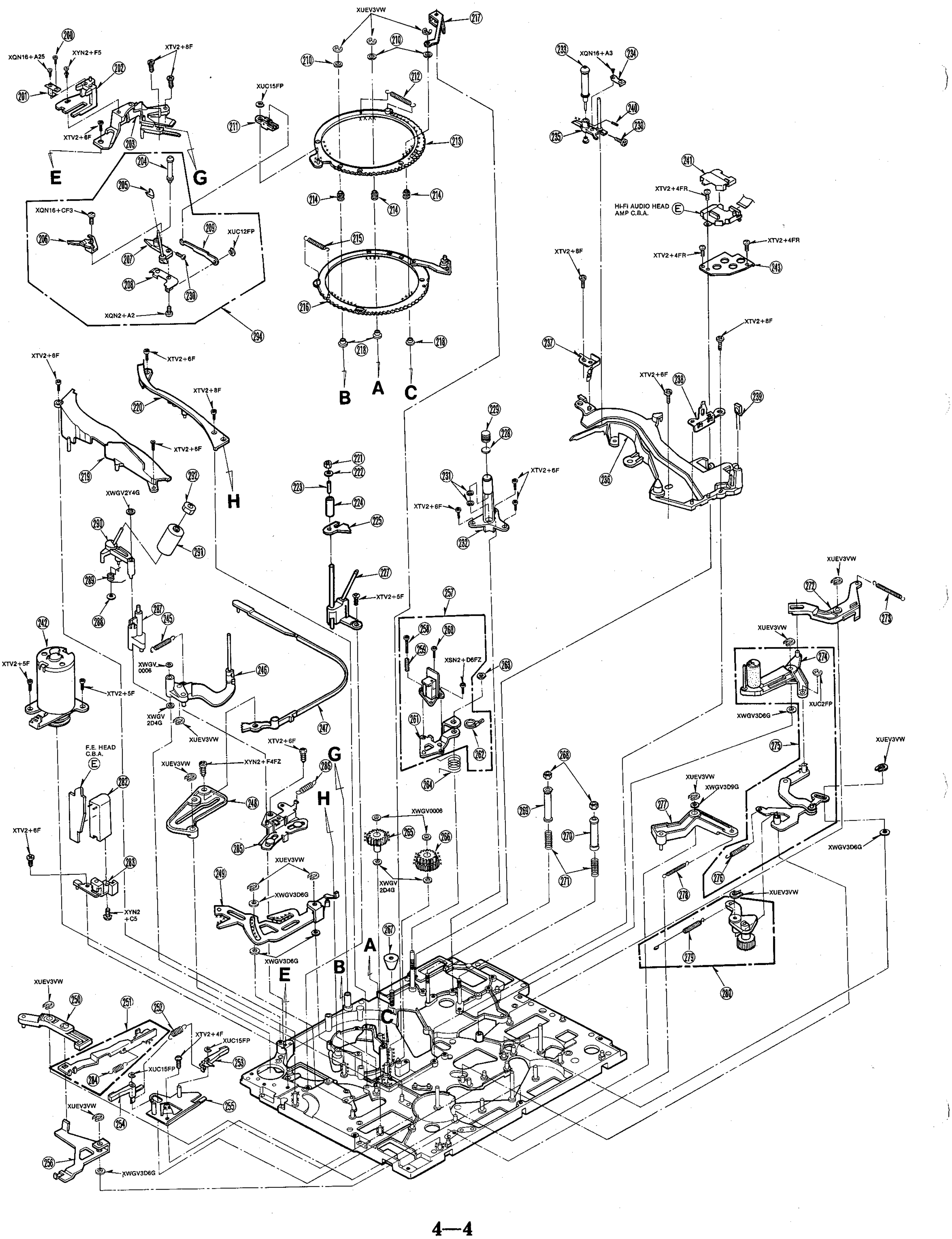
(52)
XTB26+8G
Ⓔ ANT JACK C.B.A.
(89)
(90)
(67)
XTN26+6G
Ⓔ TV DEMODULATOR C.B.A.
XTN26+6G
(91)
(51)
(50)
(51)
(54)
(55)
(56)
(57)
XTN26+8G
XTN26 +8G
(58)
XTB26 +6G
(59)
(60)
(82)
(53)
(61)
Ⓔ POWER TR C.B.A.
XTV26+6F
XTN26 +8G
XTN26 +8G
XTB26+6G
Ⓔ DC JACK C.B.A.
(61)
(62)
XTB26 +6G
Ⓔ Hi-Fi/NORMAL AUDIO C.B.A.
(65)
(64)
MAIN C.B.A. Ⓔ
(73)
(63)
LUMINANCE & CHROMINANCE C.B.A. Ⓔ
(68)
XQN2+A2
XTN26+8G
(69)
XTB26 +6G
(72)
(66)
(83)
(84)
(85)
(86)
(87)
(88)
(81)
XTN26 +8G
(62)
VTR OPERATION C.B.A. Ⓔ
XTB26+4G
XTV26 +6F
XTN26 +8G
XTV26 +6F
Ⓔ INTERFACE C.B.A.
(71)
SUB VTR OPERATION Ⓔ C.B.A.
XTB26+4G
(79)
XTB26 +4G
(82)
(70)
XTB26+6G
XTV26+6F
XTB2+8GFZ
XTB26+6G
(64)
XTB26 +4G
XTB26+6GFZ
(80)
XTB26+6GFZ
(75)
(74)
XQN2+ CF5FZ
XQN2+ CF5FZ
XTB26+6G
Ⓔ HEADPHONE JACK C.B.A.
(78)
XTN26I +20GFZ
(77)
(77)
(76)
XTB26 +8GFZ

❸ MECHANISM SECTION (1)



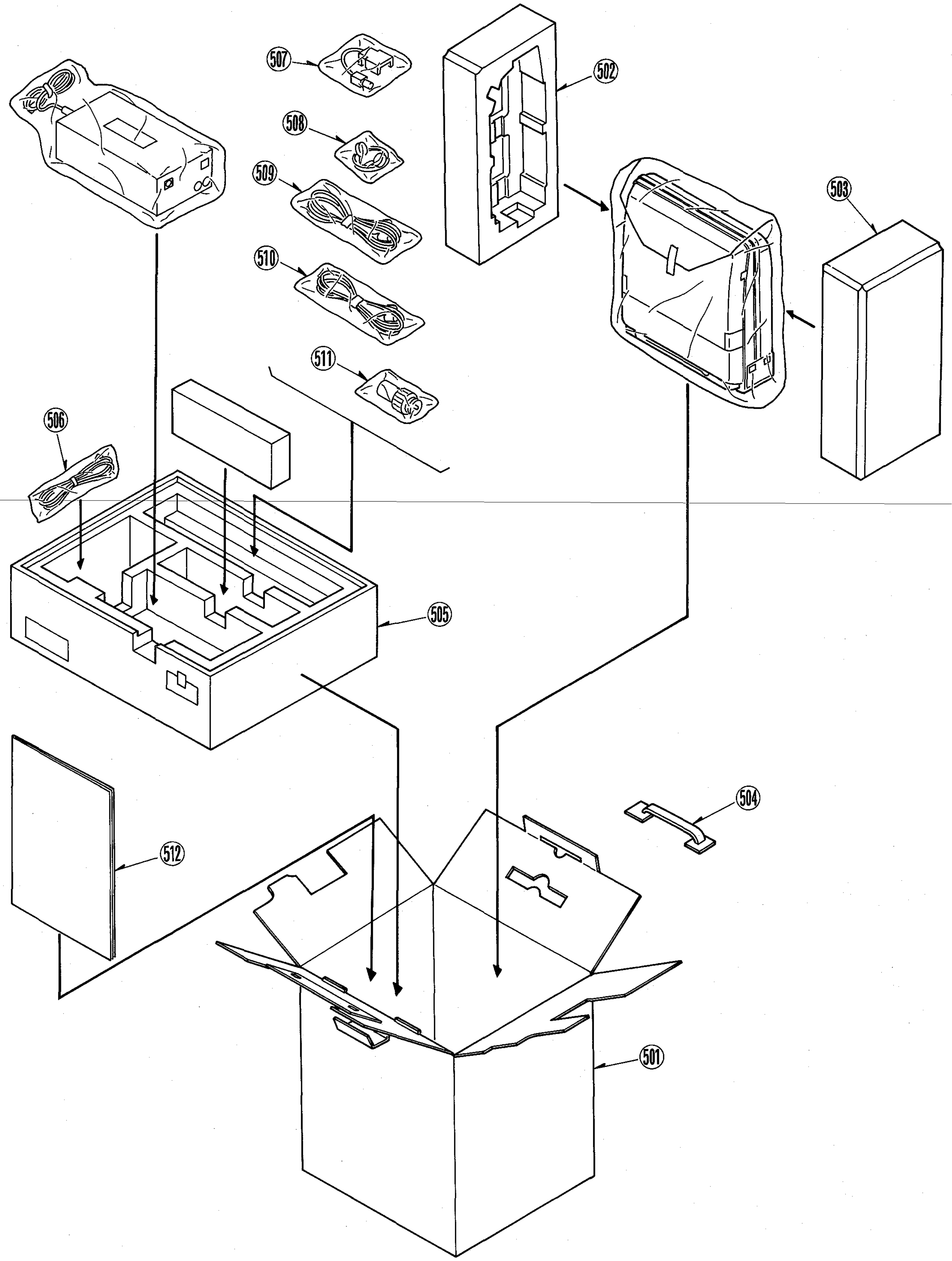
100
101
102
XTN2+5G
XTN2+5G
B
122
103
XSS2+5
XTN2+5G
XUEV3VW
123
124
XWGV3D6G
XUEV3VW
125
126
XWGV3D6G
XTV2+6F
129
135
XUEV3VW
A
XTV2+5F
XTN2+14F
168
XUEV3VW
136
XUC2FP
XQN16+C8
104
B
XTN2+5G
E
TAKEUP PHOTO C.B.A.
107
110
109
XUC2FP
XTN2+5G
105
XUC15FP
118
XUC15FP
117
116
XUC15FP
119
121
XUC15FP
120
XYE26 +AF8R
114
115
SUPPLY PHOTO C.B.A.
E
XYN2+E6FN
112
XSN2+6
113
XYE26+AF8R
XYE26+AF8R
C
XYE2+BF6FZ
158
159
XTV26+6F
XYN2+C8
145
XTV2+4F
160
XWGV0006
163
XYN26+A6
141
144
149
169
XWGV2D4G
142
143
150
149
A
XWGV0006
149
XWGV 3D6G
XUEV3VW
161
156
XYE2 +BF9FZ
155
XUEV3VW
XWGV2D4G
147
XWGV3D6G
XUEV3VW
XTV2+5F
XTV2+5F
XTV2+5F
XWGV0006
170
137
171
138
139
171
140
151
152
E
MECHANISM CONNECTION C.B.A.
164
XWGV3D6G
165
153
XWGV3D6G
154
148
157
XTV2+6F
167
166
C
XWGV3D6G
XUEV3VW
XUEV3VW
XTV2+8F

❹ MECHANISM SECTION (2)



200
XQN16+A25
XYN2+F5
201
202
XTV2+8F
XTV2+6F
203
E
G
204
205
XQN16+CF3
206
207
208
209
XUC12FP
230
XQN2+A2
294
XUC15FP
211
XUEV3VW
217
210
212
213
214
215
216
218
B
A
C
233
XQN16+A3
234
240
235
230
241
XTV2+4FR
HI-FI AUDIO HEAD AMP C.B.A.
243
XTV2+4FR
XTV2+8F
237
238
239
236
229
228
231
232
XTV2+6F
220
219
H
221
222
223
224
225
227
XTV2+5F
292
291
290
XWGV2Y4G
289
288
287
245
246
247
242
XWGV 0006
XWGV 2D4G
XUEV3VW
F.E. HEAD C.B.A.
282
283
XYN2 +C5
248
XYN2+F4FZ
285
286
249
XWGV3D6G
257
258
259
260
XSN2+D6FZ
263
261
262
264
265
266
XWGV0006
267
268
269
270
271
272
273
274
XUC2FP
275
276
277
XWGV3D9G
278
279
280
250
251
252
284
253
XTV2+4F
XUC15FP
254
255
256

❺ PACKING PARTS & ACCESSORIES SECTION


507
502
508
509
503
510
511
506
505
504
512
501

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VYK1626	UPPER MONITOR COVER	1	
2(1)		VKM2531	MONITOR COVER	1	
3(1)		VMD1457	SHAFT HOLDER R	1	
4(1)		DFHM0060ZA	LCD HOLDER	1	
5(1)		DFHR5102A	HINGE SHAFT	1	
6(1)		VMB2072	HINGE SPRING	1	
7(1)		VML2350	HOOK LEVER L	1	
8(1)		VMB2079	HOOK LEVER SPRING L	1	
9(1)		VMD1489	WASHER	1	
10(1)		VML2351	HOOK LEVER R	1	
11(1)		VMB2105	HOOK LEVER SPRING R	1	
12(1)		VMD1456	SHAFT HOLDER L	1	
13(1)		VKF1618	REAR COVER	1	
14(1)		VMP2526	TUNER BRACKET A	1	
15(1)		VSQ0726	ROD ANTENNA	1	
16(1)		VMD1454	REFLECTOR	1	
17(1)		VEK4718	FLUORESCENT LAMP	1	
18(1)		VEG2074	CONDUCT SHEET	1	
19(1)		VMG0519	LAMP HOLDER	2	
20(1)		VXA3904	LCD PANEL HOLDER	1	
21(1)		VEK5177	LCD PANEL	1	
23(1)		VGU4981	COLOUR/TINT KNOB	2	
24(1)		VGU4980	BRIGHT KNOB	1	
25(1)		VMD1455	SPEAKER BRACKET	1	
26(1)		EAS45P106F	SPEAKER	1	
27(1)		VMD1565	SPEAKER NET	1	
28(1)		VYF1625	LOWER MONITOR COVER L	1	
29(1)		VMG0541	RUBBER CAP B	2	
30(1)		VMG0520	RUBBER CAP	2	
31(1)		VYK3499	TOP CASE (1)	1	
32(1)		VMD1467	HANDLE GUIDE	2	
33(1)		VYH0131	HANDLE (1)	1	
34(1)		VKM1995	HANDLE B	1	
35(1)		VMA8094	HANDLE FRAME	1	
36(1)		VKM2538	HANDLE A	1	
37(1)		VSC3092	FM BCI SHIELD	1	
38(1)		VGU4951	TUNER SELECT KNOB	1	
39(1)		VXU0969	TV OPERATION BUTTON	1	
40(1)		VMP2650	TV OPERATION BRACKET	1	
41(1)		VMC0601	LCD PANEL EARTH	1	
42(1)		VSC3085	LCD PANEL SIELD	1	
43(1)		VSC3006	SIELD COVER (TOP)	1	FOR BACK LIGHT C.B.A.
44(1)		VSC3007	SIELD COVER (BOTTOM)	1	FOR BACK LIGHT C.B.A.
45(1)		VMZ1579	BRIGHT KNOB BARRIER	1	
46(1)		VSC3003	LCD MONITOR C.B.A. SIELD	1	
			COVER		
47(1)		VSC3004	LCD MONITOR C.B.A. SIELD	1	
			COVER		
48(1)		VSC3089	SIELD	1	
95(1)		VSC3297	BACK LIGHT SIELD	1	
96(1)		VSC3270	BACK LIGHT SIELD SPRING	1	
50(2)		VYF1627	CASSETTE COVER	1	
51(2)		VHD0359	SCREW	2	
52(2)		VMP2528	TUNER BRACKET B	1	
53(2)		VYK3503	BATTERY BRACKET	1	
54(2)		VMC0356	DOOR SPRING	1	
55(2)		VKF1414	BATTERY DOOR	1	
56(2)		VGQ1122	BATTERY LOCK BLOCK	1	
57(2)		VGU5052	BATTERY EJECT BUTTON	1	
58(2)		VMC0238	STOPPER	1	
59(2)		VMB1610	COIL SPRING	1	
60(2)		VGQ1181	STOPPER REREASE	1	
61(2)		VWJ0468	13P FLAT CARD	1	
62(2)		VWJ0469	18P FLAT CARD	1	
63(2)		VKC0373	CIRCUIT BOARD HOLDER	2	
64(2)		VWJ0467	22P FLAT CARD	1	
65(2)		VMC0573	FRAME EARTH SPRING	1	
66(2)		VMX1563	FIXING HINGE	1	
67(2)		VMD1466	OUTSIDE ANTENNA BLOCK	1	
68(2)		VSQ0493	DEW SENSOR	1	
69(2)		VMP2525	DEW ANGLE	1	
70(2)		VGU4954	AUDIO VR KNOB	1	
71(2)		VGQ1980	CAMERA CONNECTOR BRACKET	1	
72(2)		VSC1932	POWER SIELD (COMPO,SIDE)	1	
73(2)		VSC1358	POWER SIELD (FOIL SIDE)	1	
74(2)		VYK3500	BOTTOM COVER	1	
75(2)		VMP2527	CASE BRACKET	2	
76(2)		VKF1619	CONNECTOR COVER	1	
77(2)		VKA0038	RUBBER FOOT	2	
78(2)		VYF1624	FRONT DOOR	1	
79(2)		VGU4953	SLIDE KNOB	5	
80(2)		VYK3502	FRONT COVER	1	
81(2)		VSC2721	SHIELD BARRIER	1	
82(2)		VKM2529	BATTERY HOLDER	1	
83(2)		VSC3051	HEAD AMP SIELD (TOP)	1	
84(2)		VSC2583	HEAD AMP SIELD (MAIN)	1	
85(2)		VSC2584	HEAD AMP SIELD (BOTTOM)	1	
86(2)		VSC2995	CCD C.B.A. SIELD (TOP)	1	
87(2)		VSC2996	CCD C.B.A. SIELD (MAIN)	1	
88(2)		VSC2997	CCD C.B.A. SIELD (BOTTOM)	1	
89(2)		VSC3002	ANT.JACK SIELD (BOTTOM)	1	
90(2)		VSC3001	ANT.JACK SIELD (TOP)	1	
91(2)		VLQ0471	TV.DEMODU BARRIER	1	
100(3)		VMD0954	CASSETTE GUIDE (L)	1	
101(3)		VDG0610	MAIN ARM GEAR (A)	1	
102(3)		VMD0953	CASSETTE GUIDE (R)	1	
103(3)		VXA4022	CASSETTE HOLDER UNIT	1	
104(3)		VXP1139	DAMPER UNIT	1	
105(3)		VXL1984	LOCK LEVER UNIT	1	
107(3)		VXA3863	STAND (R) UNIT	1	
109(3)		VMB1329	HOLDER SPRING (L)	1	
110(3)		VMB1621	HOLDER SPRING (R)	1	
112(3)		VSH0026	LEAF SW	1	
113(3)		VMD1483	LEAF SW COVER (O)	1	
114(3)		VMB1330	LOCK BOARD SPRING	1	
115(3)		VXA3023	STAND (L) UNIT	1	
116(3)		VMB1453	LOCK LEVER (B) SPRING	1	
117(3)		VML1650	LOCK LEVER (B)	1	
118(3)		VDP1096	LOCK ROLLER (O)	1	
119(3)		VXL1648	LOCK BOARD UNIT	1	
120(3)		VMB1331	LOCK LEVER (A) SPRING	1	
121(3)		VML1649	LOCK LEVER (A)	1	
122(3)		VXA3864	CASSETTE UP (O) UNIT	1	
123(3)		VXR0128	SUPPLY REEL TABLE	1	
124(3)		VXP0900	SUPPLY CLUTCH UNIT	1	
125(3)		VXP0901	TAKE-UP CLUTCH UNIT	1	
126(3)		VXR0201	TAKE-UP REEL TABLE	1	
128(3)		VSQ0493	DEW DETECTOR UNIT	1	
129(3)		VGQ0888	CASSETTE OPENER	1	
135(3)		VXZ0246	SOFT BRAKE (T) UNIT	1	
136(3)		VXP0899	DRIVE GEAR ARM UNIT	1	
137(3)		VHD0288	CYLINDER UNIT SCREW	2	
138(3)		VEH0468	UPPER CYLINDER UNIT	1	
139(3)		VJR0361	RT TERMINAL	1	<!>
140(3)		VEG0770	CYLINDER UNIT	1	<!>
140(3)		VDV0167	LOADING BELT	1	
142(3)		VDG0370	INTERMEDIATE PULLEY GEAR	1	
143(3)		VMX0653	CUT WASHER	1	
144(3)		VDG0372	DRIVE GEAR (B)	1	
145(3)		VXS0076	EARTH HOLDER UNIT	1	
147(3)		VDG0371	DRIVE GEAR (A)	1	
148(3)		VDG0202	CAM GEAR	1	
149(3)		VMX0388	THRUST WASHER	3	
150(3)		VXL1654	MAIN ROD (K) UNIT	1	
151(3)		VDG0211	LOADING GEAR (C) (2)	1	
152(3)		VMB1324	LOADING GEAR (C) SPRING	1	
153(3)		VDG0210	LOADING GEAR (C) (1)	1	
154(3)		VMA7228	GUARD PLATE	1	
155(3)		VML1707	DRIVE ARMKICK LEVER	1	
156(3)		VMB1388	DRIVE ARMKICK LEVER SPRING	1	
157(3)		VXP0632	SECTOR GEAR UNIT	1	
158(3)		VMA6560	SAFETY TAB SW BASE	1	
159(3)		VES0248	SAFETY TAB SW	1	
160(3)		VDG0207	DRIVE GEAR (C)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
161(3)		VSS0193	MODE SELECT SW	1	
163(3)		VEK3398	STATOR UNIT	1	
164(3)		VXP0634	ROTOR UNIT	1	
165(3)		VXP0897	MAIN PULLEY UNIT	1	
166(3)		VDV0155	CAPSTAN BELT	1	
167(3)		VMD0935	BELT COVER	1	
168(3)		VMA8096	STATOR ARM (2)	1	
169(3)		VXL1985	UPPER RT (S) ARM UNIT	1	
170(3)		VET0129	UPPER RT (R) UNIT	1	
171(3)		VHD0443	UPPER RT SCREW	2	
200(4)		VHD0282	P2 ADJUST PLATE SCREW	1	
201(4)		VMA6542	P2 ADJUST PLATE	1	
202(4)		VMD0701	SUPPLY POST STOPPER	1	
203(4)		VMD1451	V STOPPER BASE	1	
204(4)		VXP0841	SUPPLY ROLLER POST UNIT	1	
205(4)		VGQ0842	P2 CAP	1	
206(4)		VMD0769	TAPE PROTECTOR	1	
207(4)		VXA2221	SUPPLY SHAFT HOLDER(1)UNIT	1	
208(4)		VXA2256	SUPPLY SHAFT HOLDER ANGLE	1	
			UNIT	1	
209(4)		VMM0144	CONNECTION ROD	1	
210(4)		VMX1282	RING GUIDE SLEEVE UNIT	3	
211(4)		VXA2231	CONNECTION TIE UNIT	1	
212(4)		VMB1319	LOADING SPRING	1	
213(4)		VXA2253	LOADING RING (S) (1) UNIT	1	
214(4)		VDP1160	RING GUIDE ROLLER	3	
215(4)		VMB1319	LOADING SPRING	1	
216(4)		VXA3576	LOADING RING (T) (1) UNIT	1	
217(4)		VMC0250	PRESSER SPRING	1	
218(4)		VMX1279	RING GUIDE SLEEVE	3	
219(4)		VMD1155	LOADING GUIDE (S) (1)	1	
220(4)		VMD1148	LOADING GUIDE (S) (2)	1	
221(4)		VMX1048	SUPPLY UPPER LIMITER	1	
222(4)		VMS2888	P1 POST SLEEVE (B)	1	
223(4)		VMX1581	P1 COLLAR	1	
224(4)		VDP1265	P1 ROLLER	1	
225(4)		VMA6547	P1 LIMITER PLATE	1	
227(4)		VXA3112	P1 BASE (1) UNIT	1	
228(4)		VXD0098	THRUST SPACER	1	
229(4)		VHD0204	THRUST SCREW NUT	1	
230(4)		VHD0368	ROLLER POST SCREW	2	
231(4)		VMX0775	DUST SEAL	2	
232(4)		VXD0108	CAPSTAN HOUSING UNIT	1	
233(4)		VXP0927	TAKE-UP ROLLER POST UNIT	1	
234(4)		VMA6546	TAKE-UP SHAFT HOLDER ANGLE	1	
235(4)		VXA3116	TAKE-UP SHAFT HOLDER (A)	1	
			UNIT		
236(4)		VMD1165	TAKE-UP LOADING BASE	1	
237(4)		VMC0352	SHAFT HOLDER PRESSURE	1	
			SPRING		
238(4)		VMA7226	SHAFT HOLDER PLATE ANGLE	1	
239(4)		LN59NV	LED	1	
240(4)		VHD0368	TAKE-UP SHAFT ADJ. SCREW	1	
241(4)		VSC2604	HEAD AMP SHIELD PLATE	1	
242(4)		VEM0288	LOADING MOTOR UNIT	1	<!>
243(4)		VMP2221	HEAD AMP PLATE	1	
245(4)		VMB1747	TENSION SPRING	1	
246(4)		VXL1262	TENSION ARM UNIT	1	
247(4)		VXZ0245	TENSION BAND UNIT	1	
248(4)		VML2065	BAND RELEASE ARM	1	
249(4)		VML1631	TENSION KICK LEVER	1	
250(4)		VML2064	EJECT LEVER (A)	1	
251(4)		VXA3020	SUPPORTER UNIT	1	
252(4)		VMB1405	BRAKE SPRING	1	
253(4)		VXZ0207	BRAKE (R) UNIT	1	
254(4)		VXZ0206	BRAKE (L) UNIT	1	
255(4)		VXA4263	BRAKE PLATE (1) UNIT	1	
256(4)		VML2073	EJECT LEVER (B)	1	
257(4)		VED0131	A/C HEAD UNIT	1	
258(4)		VHD0275	A/C HEAD ADJUST SCREW	1	
259(4)		VMB1321	A/C HEAD ADJUST SPRING	1	
260(4)		VHD0381	A/C HEAD TILT ADJUST SCREW	1	
261(4)		VXL1696	A/C HEAD ARM UNIT	1	
262(4)		VJF0760	A/C HEAD BINDER	1	
263(4)		VHN0077	A/C HEAD ARM NUT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
264(4)		VMB1320	A/C HEAD SPRING	1	
265(4)		VDG0208	LOADING GEAR (A)	1	
266(4)		VDG0461	LOADING GEAR (B)	1	
267(4)		VHN0072	ADJUST NUT	1	
268(4)		VHN0047	M2 NYLON NUT	2	
269(4)		VMS2693	P4 POST SLEEVE	1	
270(4)		VXJ0057	P5 POST SLEEVE	1	
271(4)		VMB1322	P4,P5 SPRING	2	
272(4)		VML2067	PINCH LEVER	1	
273(4)		VMB2071	PINCH LEVER SPRING	1	
274(4)		VXL1652	PINCH ROLLER ARM (1) UNIT	1	
275(4)		VXL1650	PINCH ARM UNIT	1	
276(4)		VMB1326	PINCH ARM SPRING	1	
277(4)		VXL1264	SOFT BRAKE LEVER (S) UNIT	1	
278(4)		VMB1314	SOFT BRAKE SPRING (S)	1	
279(4)		VMB1771	REW ARM SPRING	1	
280(4)		VXL1649	FF/REW ARM UNIT	1	
282(4)		VBS0021	FE HEAD	1	
283(4)		VMD1129	FE HEAD BASE	1	
284(4)		VMB1447	SUPPORTER SPRING	1	
285(4)		VXA3579	SLIDE BASE (O) UNIT	1	
286(4)		VMB1965	SLIDE SPRING	1	
287(4)		VML2285	IMPEDANCE LEVER	1	
288(4)		VHN0109	PUSH NUT	1	
289(4)		VMB1964	IMPEDANCE DRIVE SPRING	1	
290(4)		VXL1879	IMPEDANCE ARM (1) UNIT	1	
291(4)		VDP1285	IMPEDANCE ROLLER	1	
292(4)		VMX1088	SUPPLY UPPER LIMITER	1	
294(4)		VXA2220	SUPPLY SHAFT HOLDER UNIT	1	
501(5)		VPG5690	PACKING	1	NV-FV1E
502(5)		VPG5691	PACKING	1	NV-FV1B
502(5)		VPN2647	CUSHION (R)	1	
503(5)		VPN2646	CUSHION (L)	1	
504(5)		VPN2329	HANDLE	1	
505(5)		VPN2934	ACCESSORIES BOX	1	
506(5)		VJA0573	DC CORD	1	<!>
507(5)		VJA0180	CHARGING CORD	1	<!>
508(5)		RPHV1295SYA	EARPHONE	1	
509(5)		VFA0096	A/V CORD	1	NV-FV1E
509(5)		VFA0028	A/V CORD	1	NV-FV1B
510(5)		VJA0661	ANTENNA CORD	1	
511(5)		VFA0097	PHONO/BNC ADAPTOR	1	NV-FV1B
512(5)		VQT3904	OPERATING INSTRUCTIONS	1	NV-FV1E <!>
			(ENGLISH,GERMAN,FRENCH)		
512(5)		VQT3905	OPERATING INSTRUCTIONS	1	NV-FV1E <!>
			(SPANISH,DUTCH,ITALIAN)		
512(5)		VQT3906	OPERATING INSTRUCTIONS	1	NV-FV1E <!>
			(SWEDISH,FINNISH,DANISH)		
512(5)		VQT3907	OPERATING INSTRUCTIONS	1	NV-FV1B <!>
			(ENGLISH)		
			FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE	1	(PAL)
		VFK27	HEAD CLEANING STICK	1	
		VFK0132	BACK TENSION METER	1	
		VFK0133	DIAL TORQUE GAUGE	1	
		VFK0134	ADAPTOR FOR VFK0133	1	
		VFK0190	REEL TABLE HEIGHT FIXTURE	1	
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0326	HEX. WRENCH SET	1	
		VFK0328	H-POSITION ADJ.SCREW DRIVER	1	
		VFK0329	POST ADJ. SCREW DRIVER	1	
		VFK0335	RETAINING RING REMOVER	1	
		VFK0343	CHECK LIGHT	1	
		VMS3504	ALIGNMENT SHAFT	1	
		VMX1304	CLEARANCE SPACER	1	
		MOR265	MORLYTONE GREASE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.

2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.

4.The P.C.Board units marked width'■'show below the main assembled parts.

5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP06724A	MAIN C.B.A.	1	(NLA) <!>
					INCLUDING THE CCD
					C.B.A.(VEP06398B)
		VEP03698B	CCD C.B.A.	1	(NLA)
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP06724A)
		VEP03801A	LUMINANCE & CHROMINANCE	1	(NLA)
			C.B.A.		
		VEP00R35A	SUB LUMINANCE & CHROMINANCE	1	(NLA)
			C.B.A.		
		VEP05133B	Hi-Fi HEAD AMP C.B.A.	1	(NLA)
		VEP03802A	INTERFACE C.B.A.	1	(NLA)
		VEP00R34A	SUB INTERFACE C.B.A.	1	(NLA)
		VEP04325A	Hi-Fi & NORMAL AUDIO C.B.A.	1	(NLA)
		VEP06608A	TUNER OPERATION C.B.A.	1	(NLA)
		VEP06722A	VTR OPERATION C.B.A.	1	(NLA)
		VEP06723A	SUB VTR OPERATION C.B.A.	1	(NLA)
		VEP01402A	POWER TRANSISTOR C.B.A.	1	(NLA)
		VEP07619A	TV DEMODULATOR C.B.A.	1	(NLA) <!>
					FOR NV-FV1E
					INCLUDING THE ANT
					JACK C.B.A(VEP07260A)
		VEP07619B	TV DEMODULATOR C.B.A.	1	(NLA) <!>
					FOR NV-FV1B
					INCLUDING THE ANT
					JACK C.B.A(VEP07260A)
		VEP07620A	ANT JACK C.B.A.	1	(NLA)
					PARTS LIST IS
					INCLUDING THE
					TV DEMODULATOR C.B.A.
					(VEP07619A,B)
		VEP00P24A	LAP TOP SWITCH C.B.A.	1	(NLA)
		VEP01452A	DC JACK C.B.A.	1	(NLA)
		VEP04279A	HEADPHONE JACK C.B.A.	1	(NLA)
		VEP03800A	LCD MONITOR C.B.A.	1	(NLA)
		VEP00R36A	SUB LCD MONITOR (1) C.B.A.	1	(NLA)
		VEP00R37A	SUB LCD MONITOR (2) C.B.A.	1	(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP01449A	BACK LIGHT C.B.A.	1	(NLA)
		VES0413	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEP00H73B	FE HEAD C.B.A.	1	(NLA)
		VEK3415	SUPPLY PHOTO TR. C.B.A.	1	(NLA)
		VEK3414	TAKE-UP PHOTO TR. C.B.A.	1	(NLA)
	■	VEP06724A	MAIN C.B.A		INCLUDING THE CCD
					C.B.A.(VEP03698B)
			CAPACITORS		
C1001		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	
C1002		ECUM1H561KBV	C.CAPACITOR CH 50V 560P	1	
C1003		ECUM1H391KBV	C.CAPACITOR CH 50V 390P	1	
C1004		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1005,06		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	2	
C1007		ECEA1EU101	E.CAPACITOR 25V 100U	1	
C1008,09		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C1010		ECEA1EU101	E.CAPACITOR 25V 100U	1	
C1011		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C1012		ECEA1AGE221	E.CAPACITOR 10V 220U	1	
C1013		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C1014		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C1015,16		ECEA1AGE221	E.CAPACITOR 10V 220U	2	
C1017		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C1018,19		ECEA1AGE221	E.CAPACITOR 10V 220U	2	
C1020,21		ECEA1CKJ101	E.CAPACITOR 16V 100U	2	
C1035		ECEA1AGE221	E.CAPACITOR 10V 220U	1	
C1040		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C1042		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C1044		ECEA0JKK100	E.CAPACITOR 6.3V 10U	1	
C2001,02		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	2	
C2003		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2004,05		ECEA0JKA470	E.CAPACITOR 6.3V 47U	2	
C2006		ECUM1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2007		ECUM1H472ZFV	C.CAPACITOR CH 50V 4700P	1	
C2009,10		ECEA1CKA220	E.CAPACITOR 16V 22U	2	
C2011		ECUM1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2012		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C2013		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2014		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2015,16		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C2017,18		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C2019		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2020		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C2021,22		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C2023		ECUM1E333ZFN	C.CAPACITOR CH 25V 0.033U	1	
C2024		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2025,26		ECEA0JKA470	E.CAPACITOR 6.3V 47U	2	
C2027		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2028		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2029		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2030		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2032		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2033		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2034		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2035		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2036		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2037		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2038		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2039		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C2040		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2041		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2042		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2043		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C2044		ECUM1C184ZFN	C.CAPACITOR CH 16V 0.18U	1	
C2045		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C2046-49		ECUM1C333ZFV	C.CAPACITOR CH 16V 0.033U	4	
C2050		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2051		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2053		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C2054		ECUM1C333ZFV	C.CAPACITOR CH 16V 0.033U	1	
C2055		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2056-58		ECEA1HKN3R3	E.CAPACITOR 50V 3.3U	3	
C2059-61		ECUM1H472ZFV	C.CAPACITOR CH 50V 4700P	3	
C2062-64		ECEA1CKA470L	E.CAPACITOR 16V 47U	3	
C2065-67		ECEA1EKK2R2	E.CAPACITOR 25V 2.2U	3	
C2068-70		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C2071		ECUM1C333ZFV	C.CAPACITOR CH 16V 0.033U	1	
C2072		ECUM1C474ZFM	C.CAPACITOR CH 16V 0.47U	1	
C2073		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
C2081		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2082		ECUM1E334ZFM	C.CAPACITOR CH 25V 0.33U	1	
C2501,02		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	2	
C2503		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2504,05		ECEA0JKA470	E.CAPACITOR 6.3V 47U	2	
C2506		ECUM1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2507		ECUM1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C2509,10		ECEA1CKS220	E.CAPACITOR 16V 22U	2	
C2511		ECUM1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2512		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C2513		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2514		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C2516		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2517		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2521,22		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C2526		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2529		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2530		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2542		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2543		ECUM1C473ZFV	C.CAPACITOR CH 16V 0.047U	1	
C2544		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	
C2545		ECUM1H150JCV	C.CAPACITOR CH 50V 15P	1	
C2546		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	
C2547		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2548		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3502		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3507		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3508		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3510,11		ECEA0JKA221	E.CAPACITOR 6.3V 220U	2	
C3512		ECUM1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3514		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3515		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3516,17		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3518		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3522		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3523		ECUM1H151JV	C.CAPACITOR CH 50V 150P	1	
C3524		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3525		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3526		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3528		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3534		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3536		ECEA1AKA101	E.CAPACITOR 10V 100U	1	
C3537		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3540		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3541		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C3542		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3543		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C3544-46		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C3547		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3801,02		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3803		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3804,05		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3806		ECUM1H391JCV	C.CAPACITOR CH 50V 390P	1	
C3807-09		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C3810		ECUM1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3811,12		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3837		ECUM1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3853,54		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3856,57		ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	2	
C3858,59		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3860		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3861		ECUM1H270JCV	C.CAPACITOR CH 50V 27P	1	
C3862		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3863		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3864		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3865		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3866		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C3867		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3868		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3869		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C3870		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3871		ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	1	
C3872		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3873		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3874		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C3875		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C5001		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5002		ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C5003		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5004		ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C5005		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5006		ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C5007		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5008		ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C5009		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C5010		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5011		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5012		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5013		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5014		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5015		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5016,17		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C5018		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5019		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5020		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5021		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5022,23		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C5024		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5026,27		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	2	
C5029		ECUM1H121JCV	C.CAPACITOR CH 50V 120P	1	
C5030		ECUM1H151JV	C.CAPACITOR CH 50V 150P	1	
C5031		ECUM1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5032-35		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	4	
C5036-39		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	4	
C5040		ECUM1H151JV	C.CAPACITOR CH 50V 150P	1	
C6001		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6002		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C6003		ECEA1EKA100	E.CAPACITOR 25V 10U	1	
C6004		ECEA1AKA330	E.CAPACITOR 10V 33U	1	
C6005		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6006,07		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	2	
C6008		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C6009		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6010		ECUM1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6011		ECRJA030E12	V.CAPACITOR	1	
C6012,13		ECUM1H150JCV	C.CAPACITOR CH 50V 15P	2	
C6014		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6015		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C6016-18		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C6019		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C6020		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6021-23		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C6024		ECUM1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C6025		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C6027		ECEA1EKA100	E.CAPACITOR 25V 10U	1	
C6028		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C6029		ECUM1H331KBV	C.CAPACITOR CH 50V 330P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6030		ECEA1EGE221	E.CAPACITOR 25V 220U	1	
C6031-36		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	6	
C6038		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C6039		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
D1001,02		MA141K	DIODE	2	
D1003		RK34	DIODE	1	
D1004		MA141K	DIODE	1	
D2001-03		DA204U	DIODE	3	
D2005		MA121	DIODE	1	
D2012,13		MA141K	DIODE	2	
D2501,02		MA143	DIODE	2	
D3501		MA141K	DIODE	1	
D3502,03		MA141WK	DIODE	2	
D3801,02		MA141K	DIODE	2	
D3803		MA141WK	DIODE	1	
D3804		MA141K	DIODE	1	
D6001		MA141WK	DIODE	1	
D6002		DAP202U	DIODE	1	
D6004		DAN202U	DIODE	1	
D6005		MA141WK	DIODE	1	
D6006,07		MA141WA	DIODE	2	
D6009		DAP202U	DIODE	1	
D6010,11		MA141K	DIODE	2	
D6012		DAN202U	DIODE	1	
D6015		MA141WA	DIODE	1	
D6017		DA204U	DIODE	1	
D6018		DAN202U	DIODE	1	
D6019		MA141K	DIODE	1	
D6020		MA141WA	DIODE	1	
D6022,23		MA141K	DIODE	2	
D6025-27		MA141K	DIODE	3	
D6031		MA141K	DIODE	1	
D6032,33		MA4220-H	DIODE	2	
D6034,35		MA141K	DIODE	2	
DL3801		VLD0089	DELAY LINE	1	
DL3802		EFDBR645A15A	DELAY LINE	1	
FL3801		VLF0727	FILTER	1	
FL3802,03		VLF0634	FILTER	2	
FL3804,05		VLF0633	FILTER	2	
IC1001		BA6149LS	IC	1	
IC1002		UN102	TRANSISTOR-RESISTOR	1	
IC2001		MN67461VDJF	IC	1	
IC2002		AN3798NS	IC	1	
IC2005		BA6435S	IC	1	
IC2006		TA8402F	IC	1	
IC2501		MN67461VDGF	IC	1	
IC2502		UPD4053BG	IC	1	
IC3501		AN3396S	IC	1	
IC3801		AN3495S	IC	1	
IC3802		MSM6965	IC	1	
IC5001		AN3311S	IC	1	
IC6002		M50963MS2AD1	IC	1	
IC6004		UPD6145G617A	IC	1	
IC6005		M54543AL	IC	1	
IC6006		UPD4094BG	IC	1	
IC6007		MN12821	IC	1	
L1001		VLQ0128	COIL 47UH	1	
L1002		ELC08D038	COIL 180UH	1	
L1003		ELC06D005	COIL 33UH	1	
L1004		VLQ0128	COIL 47UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L1005		ELC08D050	COIL 150UH	1	
L1007		ELC08D025	COIL 600UH	1	
L1008		VLQ0129	COIL 300UH	1	
L1009		VLQEL05F101K	COIL 100UH	1	
L2001		VLQEL05F1R0K	COIL 1UH	1	
L3502,03		VLQEL04F101K	COIL 100UH	2	
L3506		VLQEL04F101K	COIL 100UH	1	
L3507		VLQEL05F101K	COIL 100UH	1	
L3801		VLQ0163K150	COIL 15UH	1	
L3802		VLQ0163K220	COIL 22UH	1	
L3803		VLQ0163K150	COIL 15UH	1	
L3810		VLQEL05F101K	COIL 100UH	1	
L3811,12		VLQEL04F101K	COIL 100UH	2	
L3813		VLQ0163K150	COIL 15UH	1	
L5001		VLQEL04F101K	COIL 100UH	1	
L5002		VLQ0163K100	COIL 10UH	1	
L5004		VLQEL05F100K	COIL 10UH	1	
L5005,06		VLQEL04F120K	COIL 12UH	2	
L6001		VLQEL05F101K	COIL 100UH	1	
L6002		VLQ0319K101	COIL 100UH	1	
L6003		VLQ0163F390	COIL 39UH	1	
L6004		VLQ0472	COIL	1	
P1002		VJP1229T	CONNECTOR(MALE) 2P	1	
P1003		VJP1233T	CONNECTOR(MALE) 6P	1	
P2002		VJP1923T	CONNECTOR(MALE) 14P	1	
P2003		VJP1600T	CONNECTOR(MALE) 7P	1	
P2004		VJP1598T	CONNECTOR(MALE) 5P	1	
P2501		VJS2123	CONNECTOR(FEMALE) 18P	1	
P3501		VJP1602T	CONNECTOR(MALE) 9P	1	
P3503		VJP2237	CONNECTOR 24P	1	
P3801		VJP1600T	CONNECTOR(MALE) 7P	1	
P3802		VJP1601T	CONNECTOR(MALE) 8P	1	
P3805		VJP1595T	CONNECTOR(MALE) 2P	1	
P6001		VJP1596T	CONNECTOR(MALE) 3P	1	
P6002		VJP1597T	CONNECTOR(MALE) 4P	1	
P6003		VJS2663	CONNECTOR(FEMALE) 24P	1	
P6004		VJP1229T	CONNECTOR(MALE) 2P	1	
P6005		VJP1595T	CONNECTOR(MALE) 2P	1	
P6006		VJP1596T	CONNECTOR(MALE) 3P	1	
P6007		VJP1602T	CONNECTOR(MALE) 9P	1	
P6011		VJP1611T	CONNECTOR(MALE) 7P	1	
P6012		VJP1229T	CONNECTOR(MALE) 2P	1	
Q1001		2SB1218	TRANSISTOR	1	
Q1004		2SD1328X	TRANSISTOR	1	
Q1007		2SD1328	TRANSISTOR	1	
Q1008		2SB1218	TRANSISTOR	1	
Q1009		2SD1819	TRANSISTOR	1	
Q2001-03		2SB956	TRANSISTOR	3	
Q2501		2SD1823	TRANSISTOR	1	
Q3505		XN4601	TRANSISTOR-TRANSISTOR	1	
Q3506		2SC3931	TRANSISTOR	1	
Q3507		2SB970X	TRANSISTOR	1	
Q3508		XN4601	TRANSISTOR-TRANSISTOR	1	
Q3510		2SB1218	TRANSISTOR	1	
Q3511		XN4601	TRANSISTOR-TRANSISTOR	1	
Q3515,16		2SB970X	TRANSISTOR	2	
Q3520,21		2SC3931	TRANSISTOR	2	
Q3522		2SD1328	TRANSISTOR	1	
Q3524		2SD1819	TRANSISTOR	1	
Q3525		XN1401	TRANSISTOR-TRANSISTOR	1	
Q3801		2SC3930	TRANSISTOR	1	
Q3802		2SB1218	TRANSISTOR	1	
Q3803		2SC3930	TRANSISTOR	1	
Q3804		2SD1819	TRANSISTOR	1	
Q3805		2SB1218	TRANSISTOR	1	
Q5001		XN1401-Q	TRANSISTOR	1	
Q5002-05		2SD1328	TRANSISTOR	4	
Q5006		XN1401-Q	TRANSISTOR	1	
Q5007-10		2SD1328	TRANSISTOR	4	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q5011		2SB1218	TRANSISTOR	1	
Q5012		2SA812	TRANSISTOR	1	
Q5013		2SA1175	TRANSISTOR	1	
Q6001		2SB1218	TRANSISTOR	1	
Q6002		2SB970X	TRANSISTOR	1	
Q6004,05		2SD1820	TRANSISTOR	2	
Q6006		2SB970X	TRANSISTOR	1	
QR1001		UN5213	TRANSISTOR	1	
QR2005		UN5117	TRANSISTOR-RESISTOR	1	
QR2006		UN5213	TRANSISTOR	1	
QR2007		UN5112	TRANSISTOR-RESISTOR	1	
QR2503-06		UN5213	TRANSISTOR	4	
QR3501,02		UN5212	TRANSISTOR-RESISTOR	2	
QR3504		UN5212	TRANSISTOR-RESISTOR	1	
QR3505		UN5111	TRANSISTOR-RESISTOR	1	
QR3508		UN5213	TRANSISTOR	1	
QR3511,12		UN5212	TRANSISTOR-RESISTOR	2	
QR3801		UN5111	TRANSISTOR-RESISTOR	1	
QR5001,02		XN1212	TRANSISTOR-TRANSISTOR	2	
QR5004,05		XN1113	TRANSISTOR-RESISTOR	2	
QR6001		XN1217	TRANSISTOR-TRANSISTOR	1	
QR6002		UN5212	TRANSISTOR-RESISTOR	1	
QR6003-05		UN5213	TRANSISTOR	3	
QR6006		XN1217	TRANSISTOR-TRANSISTOR	1	
QR6010		UN5211	TRANSISTOR-RESISTOR	1	
QR6011		XN1217	TRANSISTOR-TRANSISTOR	1	
QR6014		XN1217	TRANSISTOR-TRANSISTOR	1	
QR6017		UN5111	TRANSISTOR-RESISTOR	1	
QR6019		UN5112	TRANSISTOR-RESISTOR	1	
QR6020		XN1213	TRANSISTOR-TRANSISTOR	1	
QR6022		UN5113	TRANSISTOR-RESISTOR	1	
QR6027		UN5213	TRANSISTOR	1	
QR6028,29		UN5217	TRANSISTOR-RESISTOR	2	
QR6030		UN5212	TRANSISTOR-RESISTOR	1	
QR6031		UN5217	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1001		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R1002		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1003		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1004		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1005		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1006		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R1007		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1008		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R1009		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R1012,13		ERJ8GCYJ122	M.RESISTOR CH 1/8W 1.2K	2	
R1014,15		ERJ8GCYJ152	M.RESISTOR CH 1/8W 1.5K	2	
R1018		ERJ8GCYJ122	M.RESISTOR CH 1/8W 1.2K	1	
R1019		ERJ8GCYJ821	M.RESISTOR CH 1/8W 820	1	
R1020,21		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2	
R1023		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R1024		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1025		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R1026-31		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	6	
R1051		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R1052-54		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	3	
R1055		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R1056		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1057		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R1058		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1059		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1060		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R1061		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1062		VSF0059	FUSE	1	<!>
R1063-66		VSF0015A10	FUSE	4	<!>
R2001,02		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2003		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2004		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2005		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2006		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R2007		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2009		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2010		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R2011		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2012		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R2013		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2014		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2015		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2018		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2019		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2020		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2022		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R2025		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R2028		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2029		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R2030		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2031		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2032		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R2034		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2036,37		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R2038		ERDS2TJ1R0	C.RESISTOR 1/4W 1.0	1	
R2039		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R2040		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2041		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R2042		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2043		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2044		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R2045		ERJ8GCYK2R2	M.RESISTOR CH 1/8W 2.2	1	
R2046,47		ERJ8GCYK1R8	M.RESISTOR CH 1/8W 1.8	2	
R2048		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R2049-51		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R2053,54		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	2	
R2060		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R2062		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2066		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2067-69		ERJ6GEYJ150	M.RESISTOR CH 1/10W 15	3	
R2070-72		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R2074		ERDS2TJ1R0	C.RESISTOR 1/4W 1.0	1	
R2077		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2079		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R2080		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2081		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2085,86		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R2090		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R2501,02		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R2503		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2504		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2505		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2506		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R2507		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2509		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2510		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2511		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2512		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R2513		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2514		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2515		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2517		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2518		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R2519		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R2520,21		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R2523		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2524		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3503		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3518,19		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R3526		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3529		ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R3530,31		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	2	
R3532		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3533		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3534		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3535		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3536		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3537		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3540		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3541		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3542,43		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R3544		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3545		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3547		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3551		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3552		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3553		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3554		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3555		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3557		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3558		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3559		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3564		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3567		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3568		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3570		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3571		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3572		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R3573,74		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3575		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R3576		ERJ3GEG103	M.RESISTOR CH 1/16W 10K	1	
R3577		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3578		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3801		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3802,03		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	2	
R3804,05		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R3806,07		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3837		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3838,39		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R3840		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3852		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3870		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3871		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3872		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3873		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3874		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3875		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3876,77		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3878		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3879		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3880		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3882		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3883		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R3884		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3885		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3886		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3887		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3888		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3889		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3890		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3891		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3892		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3893		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3894		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3895		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3896,97		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R5001		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5002		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5003		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5004		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R5005,06		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R5007		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5008		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5009		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5010		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R5011,12		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R5013		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5014		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5015		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5016		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5017		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R5018,19		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R5020		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R5021		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5022		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5023		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R5024,25		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R5026		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5027-30		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	4	
R5031		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5032		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5033		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R5034		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5035		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5037		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5038		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5039		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R5040		ERJ3GEK4R7	M.RESISTOR CH 1/16W 4.7	1	
R5041-44		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R5045-48		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	4	
R5049		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R6001,02		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6003		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R6004		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R6005-09		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	5	
R6010		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R6011,12		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6013,14		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R6015-23		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	9	
R6024,25		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6027		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6029		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6030,31		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R6032-36		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	5	
R6038,39		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6040,41		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6044,45		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R6047-50		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	4	
R6051		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6052		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R6053		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6054,55		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6058-60		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R6062		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6063		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6064		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6065		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6066		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6067		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R6068		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6069		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6070		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6071		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6072		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6073		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R6074,75		ERJ8GCYJ331	M.RESISTOR CH 1/8W 330	2	
R6076		ERJ8GCYJ271	M.RESISTOR CH 1/8W 270	1	
R6077-79		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R6080		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R6081		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R6082		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6083		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6084-87		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R6088		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6090		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6091		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6092		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R6093,94		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R6095		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R6096		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R6097		ERJ8GCYJ101	M.RESISTOR CH 1/8W 100	1	
R6098		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6099		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6100		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6101		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6102		ERJ8GCYJ101	M.RESISTOR CH 1/8W 100	1	
R6103-06		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R6107		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6108		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6109		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
VR1002		EVM7JSX30B23	V.RESISTOR 2K	1	
VR1003		EVM7JSX30B53	V.RESISTOR 5K	1	
VR2001		EVM7JSX30B15	V.RESISTOR 100K	1	
VR2002		EVM7JSX30B54	V.RESISTOR 50K	1	
VR3805		EVM7JSX30B23	V.RESISTOR 2K	1	
VR3806		EVM7JSX30B52	V.RESISTOR 500	1	
VR3807		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3808		EVM7JSX30B24	V.RESISTOR 20K	1	
VR6001		EVM7JSX30B15	V.RESISTOR 100K	1	
X1001		VSX0136	CRYSTAL OSCILLATOR	1	
X2501		VSX0187	CRYSTAL OSCILLATOR	1	
X3801		VSX0424	CTYSTAL OSCILLATOR	1	
X6001		VSX0140	CRYSTAL OSCILLATOR	1	
	■	VEP03801A	LUMINANCE & CHROMINANCE		
			C.B.A.		
			CAPACITORS		
C3001		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3002		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3003		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3004,05		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3006		ECUM1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3007		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3008		ECUM1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3010		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C3021		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C3022		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3023,24		ECEA0JSJ151	E.CAPACITOR 6.3V 150U	2	
C3025		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3027		ECEA1CSN4R7	E.CAPACITOR 16V 4.7U	1	
C3028		ECST1VY104ZR	T.CAPACITOR 35V 0.1U	1	
C3029		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3033-37		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	5	
C3038		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C3039		ECUM1H471JV	C.CAPACITOR CH 50V 470P	1	
C3043		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3044		ECUM1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3046		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C3048		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3049		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C3050		ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	1	
C3051		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3052		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3053		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3054		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3056		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3057		ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	1	
C3058		ECUM1H273ZFN	C.CAPACITOR CH 50V 0.027U	1	
C3060		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C3076-78		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C3079		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C3082		ECUM1H100DCV	C.CAPACITOR CH 50V 10P	1	
C3083-86		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C3087		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C3088		ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3089		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3090		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C3091		ECUM1H471JV	C.CAPACITOR CH 50V 470P	1	
C3092		ECUM1H820JCV	C.CAPACITOR CH 50V 82P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3094		ECUM1H391KBN	C.CAPACITOR CH 50V 390P	1	
C3095		ECUM1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3096		ECUM1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3098,99		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3100		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C3104		ECUM1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3108		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3109		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3110		ECUM1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3111		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3112		ECUM1H682ZFV	C.CAPACITOR CH 50V 6800P	1	
C3113		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C8001		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C8002		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C8003		ECUM1H271JCV	C.CAPACITOR CH 50V 270P	1	
C8004		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C8005		ECUM1C104ZFN	C.CAPACITOR CH 16V 0.1U	1	
C8006-18		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	13	
C8019		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C8020		ECEA1EKK2R2	E.CAPACITOR 25V 2.2U	1	
C8021		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8022		ECEA1EKK3R3	E.CAPACITOR 25V 3.3U	1	
C8023,24		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8025		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C8026		ECUM1H030CCV	C.CAPACITOR CH 50V 3P	1	
C8027		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8028		ECEA0JSJ151	E.CAPACITOR 6.3V 150U	1	
C8029		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8030		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C8031-35		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	5	
C8036		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C8037		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8039		ECEA1HKS0R1	E.CAPACITOR 50V 0.1U	1	
C8043		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8045		ECUM1H390JCV	C.CAPACITOR CH 50V 39P	1	
C8047,48		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8049		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C8051		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C8052		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8053		ECUM1E153ZFV	C.CAPACITOR CH 25V 0.015U	1	
C8061		ECUM1H560JCV	C.CAPACITOR CH 50V 56P	1	
C8062		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8063		ECUM1H560JCV	C.CAPACITOR CH 50V 56P	1	
C8064,65		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8066		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	1	
C8067,68		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8069		ECUM1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C8070		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C8071		ECUM1H330JCV	C.CAPACITOR CH 50V 33P	1	
C8072		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8073		ECUM1H821JV	C.CAPACITOR CH 50V 820P	1	
C8074		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8075		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C8076-79		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C8080		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
D3001-04		MA141WK	DIODE	4	
DL8001		VLD0174	DELAY LINE	1	
FL3001		ELB4C014	FILTER	1	
FL3004		VLF0717	FILTER	1	
FL8001		ELB4B010	FILTER	1	
FL8002		ELB4B048	FILTER	1	
FL8003		VLF0625	FILTER	1	
FL8008		ELB4B024	FILTER	1	
IC3003		AN3237FB	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC8001		M52059AFP	IC	1	
IC8002		M52063FP	IC	1	
L3002		VLQ0163K180	COIL 18UH	1	
L3005		VLQ0163K101	COIL 100UH	1	
L3006		VLQ0163K121	COIL 120UH	1	
L3007		VLQ0163K221	COIL 220UH	1	
L3008		VLQ0163K3R9	COIL 3.9UH	1	
L3009		VLQ0163K121	COIL 120UH	1	
L3010		VLQEL05F101K	COIL 100UH	1	
L3012		VLQEL05F101K	COIL 100UH	1	
L3014,15		VLQEL05F101K	COIL 100UH	2	
L3017		VLQ0163K151	COIL 150UH	1	
L3018		VLQ0163K330	COIL 33UH	1	
L3019		VLQ0163K150	COIL 15UH	1	
L8012		VLQEL05F101K	COIL 100UH	1	
L8015		VLQ0163K121	COIL 120UH	1	
L8016		VLQEL05F101K	COIL 100UH	1	
L8017,18		VLQ0163K101	COIL 100UH	2	
L8019		VLQEL05F220K	COIL 22UH	1	
L8020		VLQEL05F101K	COIL 100UH	1	
L8021		VLQ0163K150	COIL 15UH	1	
P3001		VJS2237	CONNECTOR 24P	1	
P3005		VJP1602T	CONNECTOR(MALE) 9P	1	
Q3001		2SD1820	TRANSISTOR	1	
Q3002		2SB1219	TRANSISTOR	1	
Q3003		2SC3931	TRANSISTOR	1	
Q3007		2SD1819	TRANSISTOR	1	
Q3009		2SD1819	TRANSISTOR	1	
Q3011		2SC3931	TRANSISTOR	1	
Q3012		2SD1819	TRANSISTOR	1	
Q3015		2SD1819	TRANSISTOR	1	
Q3016		2SD1819	TRANSISTOR	1	
Q8001		2SB970X	TRANSISTOR	1	
Q8002		XN1501	TRANSISTOR-TRANSISTOR	1	
Q8003		2SD1819	TRANSISTOR	1	
QR3005		UN5212	TRANSISTOR-RESISTOR	1	
QR3010-13		UN5212	TRANSISTOR-RESISTOR	4	
QR3017		UN5212	TRANSISTOR-RESISTOR	1	
QR3029		UN5213	TRANSISTOR	1	
QR3035-37		UN5212	TRANSISTOR-RESISTOR	3	
QR8001		XN6212	TRANSISTOR-TRANSISTOR	1	
QR8005		UN5212	TRANSISTOR-RESISTOR	1	
QR8006		XN1501	TRANSISTOR-TRANSISTOR	1	
QR8007		XN1213	TRANSISTOR-TRANSISTOR	1	
QR8008		UN5212	TRANSISTOR-RESISTOR	1	
QR8010-12		UN5212	TRANSISTOR-RESISTOR	3	
			RESISTORS		
R3006		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3008		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3009		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3010		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3013		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3015,16		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3017		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3018		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3019		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3020		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3022		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3023		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3025		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3027		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3028		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3029		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3030		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3031		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3032		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3033		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3036		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3037		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3039		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3041		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3043		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3045		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3046,47		ERJ3GEYJ270	M.RESISTOR CH 1/16W 27	2	
R3048,49		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R3050		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3051		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R3052		ERJ3GEYJ270	M.RESISTOR CH 1/16W 27	1	
R3053		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3059		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3061,62		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3063		ERJ6GEYK225	M.RESISTOR CH 1/10W 2.2M	1	
R3066		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3067		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3068		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3081		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R3082		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3083		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R3088		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3089		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3090		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3093		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3097		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3100		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3102		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3103,04		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R3113		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3115,16		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3117		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3118		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3119		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3120		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3121		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3125		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3127		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3133		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3135,36		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3139		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3141		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3145		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3146		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3147		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R3148		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8001-03		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	3	
R8004		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8005		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R8006		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8010		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R8011		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R8012		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R8013		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R8014		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8015		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R8017		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R8018		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8020		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R8025,26		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R8027		ERJ3GEJ433	M.RESISTOR CH 1/16W 43K	1	
R8028		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R8029		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R8100		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8101		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8102		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8103		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R8105		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R8106		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8107,08		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R8109		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8110		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R8111		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8112		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R8113		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R8114		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R8115,16		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2	
R8117		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R8118		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R8119		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R8120		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8122		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8123		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R8124		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R8125		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R8126		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8127,28		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R8129		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R8130		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R8131		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R8132		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8133		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R8134		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8135		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R8136,37		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R8138,39		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R8140		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
VR3003		EVM7JSX30B24	V.RESISTOR 20K	1	
VR3004		EVM7JSX30B54	V.RESISTOR 50K	1	
VR3005		EVM7JSX30B23	V.RESISTOR 2K	1	
VR3006,07		EVM7JSX30B24	V.RESISTOR 20K	2	
VR3008,09		EVM7JSX30B53	V.RESISTOR 5K	2	
VR3013		EVM7JSX30B52	V.RESISTOR 500	1	
VR8001		EVM7JSX30B13	V.RESISTOR 1K	1	
VR8007		EVM7JSX30B24	V.RESISTOR 20K	1	
VR8008		EVM7JSX30B14	V.RESISTOR 10K	1	
X8001		VSX0188	CRYSTAL OSCILLATOR	1	
	■	VEP05133B	Hi-Fi HEAD AMP C.B.A.		
			CAPACITORS		
C5501		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5502		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C5503		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5504		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C5505		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5506		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C5507		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5508		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C5509		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C5510		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5512		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5513		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5514		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5515		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5518		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5519		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	
C5520		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5521		ECUM1E103KBV	C.CAPACITOR CH 25V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C5526-29		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	4	
C5530-33		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	4	
IC5501		AN3311S	IC	1	
L5501		VLQEL04F101K	COIL 100UH	1	
P5501		VJS2117	CONNECTOR(FEMALE) 12P	1	
P5502		VJS2118	CONNECTOR(FEMALE) 13P	1	
P5503		VJP2271	CONNECTOR(MALE) 2P	1	
Q5501		XN6401	TRANSISTOR-TRANSISTOR	1	
Q5502-05		2SD1328	TRANSISTOR	4	
Q5506		XN6401	TRANSISTOR-TRANSISTOR	1	
Q5507-10		2SD1328	TRANSISTOR	4	
QR5501,02		XN1212	TRANSISTOR-TRANSISTOR	2	
QR5504,05		XN1113	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R5501		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5502		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5503		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5504		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5505		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5506		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5507		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5508		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5509		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5510		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5511		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5512		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5513		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5514		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5515		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5516		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5517		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5518		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5519		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5520		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5521		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R5522		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5523		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5524		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5525,26		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R5531		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5535		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5536,37		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R5538		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R5539		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5540-43		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	4	
	■	VEP03802A	INTERFACE C.B.A.		
			CAPACITORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1201		ECEA1EU101	E.CAPACITOR 25V 100U	1	
C1202		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C1204		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C1205		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C1206		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C1207		ECEA1CGE101	E.CAPACITOR 16V 100U	1	
C1208,09		ECEA1CKA470L	E.CAPACITOR 16V 47U	2	
C3201		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C3202		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3203		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3204		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3205		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C3206-10		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	5	
C3211		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3212		ECUM1C334ZFN	C.CAPACITOR CH 16V 0.33U	1	
C3213		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3214		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3215		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3216		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C3217		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C3235		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3243		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C3245		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3246		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C3247		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3248		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C3249		ECEA1CKS220	E.CAPACITOR 16V 22U	1	
C3252		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C4201		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4202		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C4203		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4204		ECEA1CKS220	E.CAPACITOR 16V 22U	1	
C4205		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4207,08		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	2	
C4209,10		ECEA1HKS4R7	E.CAPACITOR 50V 4.7U	2	
C4211,12		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	2	
C4215		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C4216		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4218		ECEA1AKA101	E.CAPACITOR 10V 100U	1	
C4219		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C4220		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4221		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4222		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C4223		ECEA1EKK3R3	E.CAPACITOR 25V 3.3U	1	
C4224		ECEA1AKA101	E.CAPACITOR 10V 100U	1	
C4225		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4226		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C4227		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4228		ECEA1AKA101	E.CAPACITOR 10V 100U	1	
C4229		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C4230		ECEA1AKN100	E.CAPACITOR 10V 10U	1	
C4231		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C4232		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C4233,34		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	2	
C4235		ECEA1CKS220	E.CAPACITOR 16V 22U	1	
D3201		MA141K	DIODE	1	
D3202,03		MA141WK	DIODE	2	
D3204		MA141K	DIODE	1	
D3206		MA141K	DIODE	1	
D3207		MA141WA	DIODE	1	
D3208,09		MA141K	DIODE	2	
D4201		MA141WA	DIODE	1	
D4202		MA143	DIODE	1	
D4203		MA141	DIODE	1	
FL3201		ELB4R052	FILTER	1	
FL3202		ELB4Q018	FILTER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3201		AN78L08	IC	1	
IC3203		M52055FP	IC	1	
IC4201		UPD4052BG	IC	1	
IC4202		NJM4565MD	IC	1	
IC4203		NJM386BM	IC	1	
IC4204		NJM4565MD	IC	1	
J3201		VJJ0217	CAMERA CONNECTION JACK	1	<!>
J3202		VEJ0910	AV JACK UNIT	1	<!>
L1201-03		ELC06D005	COIL 33UH	3	
L3201-03		VLQEL05F101K	COIL 100UH	3	
L3211		VLQEL05F101K	COIL 100UH	1	
L4201,02		VLQEL05F101K	COIL 100UH	2	
P3201		VJP1595T	CONNECTOR(MALE) 2P	1	
P3202		VJP1602T	CONNECTOR(MALE) 9P	1	
P3203		VJP1600T	CONNECTOR(MALE) 7P	1	
P3204		VJP1601R	CONNECTOR(MALE) 8P	1	
P3205		VJP1596T	CONNECTOR(MALE) 3P	1	
P3206		VJP1597T	CONNECTOR(MALE) 4P	1	
P3207		VJP1230T	CONNECTOR(MALE) 3P	1	
P3208		VJP1601T	CONNECTOR(MALE) 8P	1	
P3209		VJP1229T	CONNECTOR(MALE) 2P	1	
P3210		VJP1250T	CONNECTOR(MALE) 10P	1	
P3212		VJP1597T	CONNECTOR(MALE) 4P	1	
P3213		VJP1229T	CONNECTOR(MALE) 2P	1	
Q1201		2SB956	TRANSISTOR	1	
Q1202-04		2SB1073	TRANSISTOR	3	
Q3201		2SD1819	TRANSISTOR	1	
Q3202		2SC3930	TRANSISTOR	1	
Q3203		2SB1218	TRANSISTOR	1	
Q3204-06		2SD1819	TRANSISTOR	3	
Q3207		2SC3930	TRANSISTOR	1	
Q3208		2SD1819	TRANSISTOR	1	
Q3209		2SB970X	TRANSISTOR	1	
Q3210,11		2SD1819	TRANSISTOR	2	
Q3212		2SC3757	TRANSISTOR	1	
Q3213,14		2SB1218	TRANSISTOR	2	
Q3215		2SC3930	TRANSISTOR	1	
Q3220		2SD1819	TRANSISTOR	1	
Q4203,04		2SD1819	TRANSISTOR	2	
Q4205,06		2SD1328	TRANSISTOR	2	
Q4209		XN4501	TRANSISTOR-TRANSISTOR	1	
Q4210		2SD1328	TRANSISTOR	1	
Q4211		2SD1819	TRANSISTOR	1	
QR1201		XN1501	TRANSISTOR-TRANSISTOR	1	
QR1202		UN5212	TRANSISTOR-RESISTOR	1	
QR1203,04		UN5211	TRANSISTOR-RESISTOR	2	
QR1205		XN1501	TRANSISTOR-TRANSISTOR	1	
QR1206		UN5213	TRANSISTOR	1	
QR3201,02		UN5213	TRANSISTOR	2	
QR3203		UN5212	TRANSISTOR-RESISTOR	1	
QR3204		UN5214	TRANSISTOR-RESISTOR	1	
QR3205		XN1213	TRANSISTOR-TRANSISTOR	1	
QR3207		UN5213	TRANSISTOR	1	
QR3209		UN5212	TRANSISTOR-RESISTOR	1	
QR4201		UN5110	TRANSISTOR-RESISTOR	1	
QR4202		UN5213	TRANSISTOR	1	
			RESISTORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1201		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R1202		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R1203		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R1204		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1205		ERJ8GCYJ102	M.RESISTOR CH 1/8W 1K	1	
R1206		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1207,08		ERJ8GCYJ102	M.RESISTOR CH 1/8W 1K	2	
R1209		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1210		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R1211		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R1212		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1213		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1219		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R1220		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1221		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1222		VSF0059	FUSE	1	<!>
R1223		VSF0014A15	FUSE	1	<!>
R3201		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3202		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3203-05		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	3	
R3206		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3207		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3208		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3209		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3210		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3211		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3212		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R3213		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3214		ERJ3GEYG623	M.RESISTOR CH 1/16W 62K	1	
R3215		ERJ3GEG273	M.RESISTOR CH 1/16W 27K	1	
R3216		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3217		ERJ3GEJ750	M.RESISTOR CH 1/16W 75	1	
R3218		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3220		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3221,22		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3223		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3224		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3225		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3226		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3227		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3228		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R3229		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3230		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3231		ERJ3GEJ750	M.RESISTOR CH 1/16W 75	1	
R3232,33		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3234		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3235		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3236		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3237		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3238,39		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R3240		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3241		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3242		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3243		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3244		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3245		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3246		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3247		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R3248		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3249		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3250		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3251,52		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R3255		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3263		ERJ3GEJ750	M.RESISTOR CH 1/16W 75	1	
R3277		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3278		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3279		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3280		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3286,87		ERJ3GEJ750	M.RESISTOR CH 1/16W 75	2	
R3288		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3306		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3310		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4201		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R4202,03		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4204		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4205		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4206		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4207,08		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R4209		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4214-17		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	4	
R4219,20		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4222-24		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R4225,26		ERJ8GCYJ680	M.RESISTOR CH 1/8W 68	2	
R4227		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4228,29		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4230		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4231,32		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4233		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4234,35		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4236		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4237		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4238		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4243		ERJ8GCYJ151	M.RESISTOR CH 1/8W 150	1	
R4244		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R4245		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4246		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4247		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4248		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R4249		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R4250		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R4251		ERJ8GCYJ151	M.RESISTOR CH 1/8W 150	1	
R4252,53		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4254		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4255		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4256		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4257		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4258		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4259		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4260		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4261		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
VR4201		EVUAAAT43523	V.RESISTOR 2K	1	
	■	VEP04325A	Hi-Fi & NORMAL AUDIO C.B.A.		
			CAPACITORS		
C4001		ECQP1222JZ	P.CAPACITOR 100V 2200P	1	
C4002		ECRHC120N11	TRIMMER	1	
C4003		ECUM1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4004		ECUM1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C4005		ECUM1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4006		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4007		ECSF1VE105	T.CAPACITOR 35V 1U	1	
C4008		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4009		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C4010		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4011		ECUM1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C4012		ECEA1CKS220	E.CAPACITOR 16V 22U	1	
C4013		ECEA1HSN010	E.CAPACITOR 50V 1U	1	
C4014		ECUM1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C4015		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C4016		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C4017		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C4018		ECEA1AKS221	E.CAPACITOR 10V 220U	1	
C4019		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4020		ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C4021		ECUM1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C4022		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4024-26		ECEA1CKA220	E.CAPACITOR 16V 22U	3	
C4027		ECUM1H682KBN	C.CAPACITOR CH 50V 6800P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4029		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C4030		ECEA1HKKR22	E.CAPACITOR 50V 0.22U	1	
C4038		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C4040		ECUM1H151JV	C.CAPACITOR CH 50V 150P	1	
C4501		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C4502,03		ECEA1VKG6R8	E.CAPACITOR 35V 6.8U	2	
C4504		ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C4505		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4506		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4507		ECEA0JSN470	E.CAPACITOR 6.3V 47U	1	
C4508		ECEA1CSN220	E.CAPACITOR 16V 22U	1	
C4509		ECUM1E103KBN	C.CAPACITOR CH 25V 0.01U	1	
C4510		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C4511		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C4512		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C4513		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C4514		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4515		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C4516		ECEA1ASN100	E.CAPACITOR 10V 10U	1	
C4517		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4518		ECEA1HKS2R2	E.CAPACITOR 50V 2.2U	1	
C4519		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4520,21		ECEA1CKK100	E.CAPACITOR 16V 10U	2	
C4522		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4523		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C4524		ECEA1CSE680	E.CAPACITOR 16V 68U	1	
C4525		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	1	
C4526		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4527		ECEA1CSN220	E.CAPACITOR 16V 22U	1	
C4528		ECEA0JSN470	E.CAPACITOR 6.3V 47U	1	
C4529		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4530		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4531		ECUM1E223KBN	C.CAPACITOR CH 25V 0.023U	1	
C4532,33		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C4534		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4535		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4536		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4537,38		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	2	
C4539-41		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C4542		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C4543		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C4544,45		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C4546		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C4547		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4548		ECUM1H271JV	C.CAPACITOR CH 50V 270P	1	
C4549,50		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C4551		ECEA1EKK4R7	E.CAPACITOR 25V 4.7U	1	
C4552		ECEA1HKS4R7	E.CAPACITOR 50V 4.7U	1	
C4553		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4554		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4555		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4556		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C4557,58		ECEA1CKK100	E.CAPACITOR 16V 10U	2	
C4559		ECQB1H393J	P.CAPACITOR 50V 0.039U	1	
C4560		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4561		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C4562-64		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C4568		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C4569		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4577,78		ECUM1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C4580		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4581		ECEA1EKK3R3	E.CAPACITOR 25V 3.3U	1	
C4582		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C4583		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C4584		ECEA1ASE101	E.CAPACITOR 10V 100U	1	
C4589,90		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C4591		ECEA1ASE101	E.CAPACITOR 10V 100U	1	
C4592		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C4593		ECEA1EKK3R3	E.CAPACITOR 25V 3.3U	1	
C4594		ECUM1H472KBM	C.CAPACITOR CH 50V 4700P	1	
C4595		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4596		ECEA1CKA470L	E.CAPACITOR 16V 47U	1	
C4597		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C4598		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C4599,00		ECEA1EKK2R2	E.CAPACITOR 25V 2.2U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D4501		MA141WA	DIODE	1	
D4502-06		MA141K	DIODE	5	
D4508		MA141WA	DIODE	1	
D4509		MA141WK	DIODE	1	
D4510		MA141K	DIODE	1	
D4511		MA143	DIODE	1	
D4512		MA141WK	DIODE	1	
D4513		MA141K	DIODE	1	
FL4501		VLF0709	FILTER	1	
FL4502		VLF0708	FILTER	1	
FL4503		VLF0735	FILTER	1	
FL4504		VLF0736	FILTER	1	
IC4001		UPC1513G	IC	1	
IC4002		UPC2300G	IC	1	
IC4501		AN3972FB	IC	1	
IC4502		AN3932S	IC	1	
IC4503		AN3799S	IC	1	
IC4504		M5201FP	IC	1	
L4001		VLQEL05F221K	COIL 220UH	1	
L4002,03		ELTMR153KB	TRANSFORMER	2	
L4501-05		VLQEL05F101K	COIL 100UH	5	
L4506		ELC06D005	COIL 33UH	1	
L4507		VLQEL05F101K	COIL 100UH	1	
P4002		VJP1598T	CONNECTOR(MALE) 5P	1	
P4502		VJS2123	CONNECTOR(FEMALE) 18P	1	
P4503		VJS2118	CONNECTOR(FEMALE) 13P	1	
P4504		VJP1602T	CONNECTOR(MALE) 9P	1	
P4506		VJP1596T	CONNECTOR(MALE) 3P	1	
Q4001		2SD1820	TRANSISTOR	1	
Q4002		2SD1328	TRANSISTOR	1	
Q4005		2SB970X	TRANSISTOR	1	
Q4501		2SD1328	TRANSISTOR	1	
Q4502		2SB1218	TRANSISTOR	1	
Q4503		2SD1328	TRANSISTOR	1	
Q4504		2SB1218	TRANSISTOR	1	
Q4505-07		2SD1819	TRANSISTOR	3	
Q4508		2SD1820	TRANSISTOR	1	
Q4509		2SB1218	TRANSISTOR	1	
Q4519		2SD601	TRANSISTOR	1	
Q4520		2SB1218	TRANSISTOR	1	
Q4521		2SB956	TRANSISTOR	1	
Q4522,23		2SB970X	TRANSISTOR	2	
Q4524		2SB956	TRANSISTOR	1	
Q4526,27		2SD1328	TRANSISTOR	2	
Q4528		2SB1218	TRANSISTOR	1	
Q4529		2SD1819	TRANSISTOR	1	
QR4002		UN5212	TRANSISTOR-RESISTOR	1	
QR4004		UN5116	TRANSISTOR-RESISTOR	1	
QR4501		UN521E	TRANSISTOR-RESISTOR	1	
QR4502		UN5213	TRANSISTOR	1	
QR4503		UN521E	TRANSISTOR-RESISTOR	1	
QR4504		XN1501	TRANSISTOR-TRANSISTOR	1	
QR4505		UN5113	TRANSISTOR-RESISTOR	1	
QR4507,08		UN5213	TRANSISTOR	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR4512		XN1501	TRANSISTOR-TRANSISTOR	1	
QR4513-17		UN5213	TRANSISTOR	5	
QR4521-24		UN5213	TRANSISTOR	4	
QR4525		XN1501	TRANSISTOR-TRANSISTOR	1	
QR4526		UN5213	TRANSISTOR	1	
QR4527		XN1501	TRANSISTOR-TRANSISTOR	1	
			RESISTORS		
R4001		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4002		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4003		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4004		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4005		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R4006		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R4007		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R4008		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R4009		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4010		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4011		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4012		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4013		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4014		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R4015		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4016		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4018		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4019		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4020		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R4027		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4036		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4044		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4049		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4052		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4053		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4054		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R4501		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4502		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4503		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4504,05		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R4506		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4507,08		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4509		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4510		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R4511		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4512		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4513		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4514		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R4515,16		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4517		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4518		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R4519		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4520		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4521		EROS2CKG1202	M.RESISTOR 1/4W 12K	1	
R4522		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4523		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R4524		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4525		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4526		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4527		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4528		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4529		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4530,31		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R4532		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4533		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4534		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4535		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R4536,37		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R4538		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R4539		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4540		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4541,42		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4543		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R4544		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4545		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4546		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R4547		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	
R4548		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R4549		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4550		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R4551,52		ERJ3GEYJ270	M.RESISTOR CH 1/16W 27	2	
R4553,54		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	2	
R4557,58		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R4559,60		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	2	
R4578		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4579		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R4581		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4582,83		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4584		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4587		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R4588		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4589		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4590		VRE0034E163	M.RESISTOR CH 1/10W 16K	1	
R4591		VRE0034E273	M.RESISTOR CH 1/10W 27K	1	
R4592		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R4593,94		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R4595		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4596		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4597,98		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4599		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4600		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4602		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4603		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4604		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4605		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4607		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4608		VRE0034E273	M.RESISTOR CH 1/10W 27K	1	
R4609		VRE0034E163	M.RESISTOR CH 1/10W 16K	1	
R4610		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4611		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4613		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4614,15		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	2	
R4616,17		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R4618,19		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4620		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4621,22		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R4623		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4624		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4625		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4626		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4627		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R4628		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4629,30		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4631,32		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	2	
R4633		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4634		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4635,36		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R4637		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4638		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4641		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4642		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4643		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4644		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4645		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4646		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R4647,48		VSF0014A08	IC PROTECTOR	2	
T4001		EIQ7QE007Q	FILTER	1	
VR4001		EVM7JSX30B23	V.RESISTOR 2K	1	
VR4501,02		EVM7JSX30B14	V.RESISTOR 10K	2	
VR4503		EVM7JSX30B23	V.RESISTOR 2K	1	
VR4504		EVM7JSX30B24	V.RESISTOR 20K	1	
VR4505		EVM7JSX30B54	V.RESISTOR 50K	1	
VR4507		EVM7JSX30B14	V.RESISTOR 10K	1	
VR4508		EVM7JSX30B24	V.RESISTOR 20K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR4509		EVM7JSX30B53	V.RESISTOR 5K	1	
VR4510		EVM7JSX30B15	V.RESISTOR 100K	1	
VR4511,12		EVM7JSX30B53	V.RESISTOR 5K	2	
	■	VEP06608A	TUNER OPERATION C.B.A.		
P6301		VJP1611T	CONNECTOR(MALE) 7P	1	
S6301-03		EVQ11404M	SWITCH	3	
S6304		VSS0126	SWITCH	1	
	■	VEP06722A	VTR OPERATION C.B.A.		
D6401		MA141K	DIODE	1	
D6403		MA141WA	DIODE	1	
D6404		MA141K	DIODE	1	
D6405		BR1102W	DIODE	1	
D6407		BR1102W	DIODE	1	
D6409-13		BR1102W	DIODE	5	
D6414		PG1102W	DIODE	1	
D6415		BR1102W	DIODE	1	
D6417		MA141WK	DIODE	1	
D6418		MA141K	DIODE	1	
D6419		AY1102W	DIODE	1	
D6420		MA3033	DIODE	1	
IC6401		UPD4094BG	IC	1	
P6401		VJP2243	CONNECTOR(MALE) 16P	1	
QR6401-04		XN1112	TRANSISTOR-TRANSISTOR	4	
QR6405		UN5117	TRANSISTOR-RESISTOR	1	
QR6406		UN5213	TRANSISTOR	1	
QR6407-09		UN5211	TRANSISTOR-RESISTOR	3	
QR6410		UN5110	TRANSISTOR-RESISTOR	1	
QR6411		UN5213	TRANSISTOR	1	
			RESISTORS		
R6401,02		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	2	
R6404-06		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	3	
R6407		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6408,09		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	2	
R6410		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6411		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R6412-14		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
S6402-08		EVQQFV02K	SWITCH	7	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP06723A	SUB VTR OPERATION C.B.A.		
			CAPACITORS		
C6501		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C6502		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D6501		MA141K	DIODE	1	
D6502-05		MA141WA	DIODE	4	
L6501		VLQEL05F101K	COIL 100UH	1	
P6501		VJS2838	CONNECTOR(FEMALE) 22P	1	
P6502		VJS2243	CONNECTOR(FEMALE) 16P	1	
P6503		VJP1606T	CONNECTOR(MALE) 2P	1	
P6504		VJP1607T	CONNECTOR(MALE) 3P	1	
Q6501		2SD1819	TRANSISTOR	1	
			RESISTORS		
R6501		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R6504		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
S6501-07		EVQ11404M	SWITCH	7	
S6508,09		VSS0126	SWITCH	2	
S6510		ESD11V230	SWITCH	1	
S6511		VSS0221	SWITCH	1	
S6512		EVQ11404M	SWITCH	1	
S6513		ESD11V230	SWITCH	1	
	■	VEP01402A	POWER TRANSISTOR C.B.A.		
P1701		VJP1230T	CONNECTOR(MALE) 3P	1	
Q1701		2SB941	TRANSISTOR	1	(P)
	■	VEP07619A	TV DEMODULATOR C.B.A.		FOR NV-FV1E
					INCLUDING THE
					ANT JACK C.B.A.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					(VEP07620A)
			CAPACITORS		
C7001-Q3		ECUM1H222ZFV	C.CAPACITOR CH 50V 2200P	3	
C7101,02		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C7104-06		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C7108		ECUM1E334ZFM	C.CAPACITOR CH 25V 0.33U	1	
C7109		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7110		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7111		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7112		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.033U	1	
C7113		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7114		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C7115		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7116		ECEA1AKK100I	E.CAPACITOR 10V 10U	1	
C7117		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7118		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7119		ECUM1H561JCV	C.CAPACITOR CH 50V 560P	1	
C7120-23		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C7124		ECSF1CE336	T.CAPACITOR 16V 33U	1	
C7125		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7126		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C7127		ECUM1C333ZFV	C.CAPACITOR CH 16V 0.033U	1	
C7129		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C7130		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C7131		ECUM1E334ZFM	C.CAPACITOR CH 25V 0.33U	1	
C7132		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7137,38		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C7139		ECEA1HKA330	E.CAPACITOR 50V 33U	1	
C7141		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7142		ECEA1CKS4R7	E.CAPACITOR 16V 4.7U	1	
C7143		ECUM1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C7144		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7145		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7146		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7147		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7148		ECSF1CE475	T.CAPACITOR 16V 4.7U	1	
D7001		MA57	DIODE	1	
D7103-06		MA141K	DIODE	4	
D7108		MA141K	DIODE	1	
IC7101		LM358PS	IC	1	
IC7102		AN5707NS	IC	1	
J7001		VJJ0200	EX. ANT TERMINAL	1	
J7002		VJP2845	RF JACK	1	
L7001		VLQ0471	COIL	1	
L7102		VLQEL05F151K	COIL 150UH	1	
L7103		VLQEL05F221K	COIL 10UH	1	
L7106		VLQEL05F151K	COIL 150UH	1	
P7001		VJP1596T	CONNECTOR(MALE) 3P	1	
P7002		VJP1242T	CONNECTOR(MALE) 2P	1	
P7101		VJP1600T	CONNECTOR(MALE) 7P	1	
P7102		VJP1601T	CONNECTOR(MALE) 8P	1	
P7103		VJP1602T	CONNECTOR(MALE) 9P	1	
P7104		VJP1596T	CONNECTOR(MALE) 3P	1	
P7107		VJP1229T	CONNECTOR(MALE) 2P	1	
Q7103-10		2SD1819A	TRANSISTOR	8	
Q7113,14		2SD1819A	TRANSISTOR	2	
Q7115		2SD1328	TRANSISTOR	1	(S)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR7101		UN5113	TRANSISTOR-RESISTOR	1	
QR7102		UN5117	TRANSISTOR-RESISTOR	1	
QR7103,04		UN5112	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R7001		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R7002		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7003		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R7004		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7101		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7102		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R7103		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7105		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7106		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R7107		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R7108		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R7109,10		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7112		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R7113		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7114		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7115		ERJ3GEYJ124	M.RESISTOR CH 1/16W 82K	1	
R7116		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7117		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7118		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R7119		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R7120		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R7121		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7122		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R7123		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7124		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7125		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R7131,32		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R7133		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R7134		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R7135		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7136		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7138		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K		
R7139		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R7140		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7141		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R7142		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7144		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7145,46		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R7147		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7148		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7149		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7150,51		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7152		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7153		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7154		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7155		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R7156		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7160		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R7161,62		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7163		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R7164		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
SW7101		VSS0233	SWITCH	1	
VR7101,02		EVN2ACA00B54	V.RESISTOR 50K	2	
VR7103,04		EVN2ACA00B15	V.RESISTOR 100K	2	
VR7105		EVN2ACA00B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		ENH17201	TUNER,VIF UNIT	1	FOR NV-FV1E <!>
	■	VEP07619B	TV DEMODULATOR C.B.A.		FOR NV-FV1B
					INCLUDING THE
					ANT JACK C.B.A.
					(VEP07620A)
			CAPACITORS		
C7001-03		ECUM1H222ZFV	C.CAPACITOR CH 50V 2200P	3	
C7101,02		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C7104-06		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C7108		ECUM1E334ZFM	C.CAPACITOR CH 25V 0.33U	1	
C7109		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7110		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7111		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7112		ECUM1H224ZFM	C.CAPACITOR CH 50V 0.22U	1	
C7113		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7114		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C7115		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7116		ECEA1AKK100I	E.CAPACITOR 10V 10U	1	
C7117		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7118		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7119		ECUM1H561JCV	C.CAPACITOR CH 50V 560P	1	
C7120-23		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C7124		ECSF1CE336	T.CAPACITOR 16V 33U	1	
C7125		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7126		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C7127		ECUM1C333ZFV	C.CAPACITOR CH 16V 0.033U	1	
C7129		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	1	
C7130		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C7131		ECUM1E334ZFM	C.CAPACITOR CH 25V 0.33U	1	
C7132		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7137,38		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C7139		ECEA1HKA330	E.CAPACITOR 50V 33U	1	
C7141		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7142		ECEA1CKS4R7	E.CAPACITOR 16V 4.7U	1	
C7143		ECUM1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C7144		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7145		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7146		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7147		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C7148		ECSF1CE475	T.CAPACITOR 16V 4.7U	1	
D7001		MA57	DIODE	1	
D7103-06		MA141K	DIODE	4	
D7108		MA141K	DIODE	1	
IC7101		LM358PS	IC	1	
IC7102		AN5707NS	IC	1	
J7001		VJJ0200	EX. ANT TERMINAL	1	
J7002		VJP2845	RF JACK	1	
L7001		VLQ0471	COIL	1	
L7102		VLQEL05F151K	COIL 150UH	1	
L7103		VLQEL05F100K	COIL 10UH	1	
L7106		VLQEL05F151K	COIL 150UH	1	
P7001		VJP1596T	CONNECTOR(MALE) 3P	1	
P7002		VJP1242T	CONNECTOR(MALE) 2P	1	
P7101		VJP1600T	CONNECTOR(MALE) 7P	1	
P7102		VJP1601T	CONNECTOR(MALE) 8P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P7103		VJP1602T	CONNECTOR(MALE) 9P	1	
P7104		VJP1596T	CONNECTOR(MALE) 3P	1	
P7107		VJP1229T	CONNECTOR(MALE) 2P	1	
Q7103-10		2SD1819A	TRANSISTOR	8	
Q7113,14		2SD1819A	TRANSISTOR	2	
Q7115		2SD1328	TRANSISTOR	1	(S)
QR7101		UN5113	TRANSISTOR-RESISTOR	1	
QR7102		UN5117	TRANSISTOR-RESISTOR	1	
QR7103,04		UN5112	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R7001		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R7002		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7003		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R7004		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7101		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7102		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R7103		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7105		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7106		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R7107		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R7108		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R7109,10		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7112		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R7113		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7114		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7115		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R7116		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7117		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7118		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R7119		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R7120		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R7121		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7122		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R7123		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7124		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7125		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R7131,32		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R7133		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R7134		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R7135		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7136		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7138		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7139		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R7140		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7141		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R7142		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7144		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7145,46		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	2	
R7147		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7148		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7149		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7150,51		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7152		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R7153		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R7154		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R7155		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R7156		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R7160		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R7161,62		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R7163		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R7164		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
SW7101		VSS0233	SWITCH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR7101,02		EVN2ACA00B54	V.RESISTOR 50K	2	
VR7103,04		EVN2ACA00B15	V.RESISTOR 100K	2	
VR7105		EVN2ACA00B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		ENH17202	TUNER,VIF UNIT	1	FOR NV-FV1B <!>
	■	VEP00P24A	IAP TOP SWITCH C.B.A.		
P1801		VJP1606T	CONNECTOR(MALE) 2P	1	
SW1801		ESE153A	SWITCH	1	
	■	VEP01452A	DC JACK C.B.A.		
J1601		VJJ0294	DC CONNECTION TERMINAL	1	<!>
J1602		VJJ0242	REMOTECONTROL JACK	1	<!>
P1601		VJP1233T	CONNECTOR(MALE) 6P	1	
P1602		VJP1229T	CONNECTOR(MALE) 2P	1	
P1603		VJP1141	CONNECTOR(MALE) 2P	1	
			RESISTORS		
R1601		VSF0080	FUSE	1	<!>
	■	VEP04279A	HEADPHONE JACK C.B.A.		
J4901		VJJ0199	HEADPHONE JACK	1	<!>
P4901		VJP1231T	CONNECTOR(MALE) 4P	1	
	■	VEP03800A	LCD MONITOR C.B.A.		
			CAPACITORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C0101		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C0102		ECUM1H020DCV	C.CAPACITOR CH 50V 2P	1	
C0103		ECUM1H100DCV	C.CAPACITOR CH 50V 10P	1	
C0109		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C0110		ECUM1H560JCV	C.CAPACITOR CH 50V 56P	1	
C0111		ECUM1H390JCV	C.CAPACITOR CH 50V 39P	1	
C0112		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0113,14		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C0115		ECUM1E223ZFV	C.CAPACITOR CH 25V 0.022U	1	
C0116,17		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C0118		ECUM1H180JCV	C.CAPACITOR CH 50V 18P	1	
C0119		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C0120,21		ECUM1H221KBV	C.CAPACITOR CH 50V 220P	2	
C0122		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0123		ECUM1H180JCV	C.CAPACITOR CH 50V 18P	1	
C0124		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0125		ECEA1HKS3R3	E.CAPACITOR 50V 3.3U	1	
C0126,27		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C0128		ECUM1H331KBV	C.CAPACITOR CH 50V 330P	1	
C0129		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C0130		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C0133		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C0134		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0136		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0137		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C0139		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0140		ECEA1CKK100	E.CAPACITOR 16V 10U	1	
C0141		ECUM1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C0142		ECUM1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C0143		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C0374		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C0402,03		ECUM1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C0404		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C0405		ECUM1C334ZFN	C.CAPACITOR CH 16V 0.33U	1	
C0406		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C0407		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C0408		ECUM1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C0409		ECUM1H471KBV	C.CAPACITOR CH 50V 470P	1	
C0410		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C0411		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0412		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C0413		ECUM1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C0418,19		ECUM1H470JCV	C.CAPACITOR CH 50V 47P	2	
C0421,22		ECUM1H680JCV	C.CAPACITOR CH 50V 68P	2	
C0423		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0424		ECUM1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C0425		ECUM1H101JCV	C.CAPACITOR CH 50V 100P	1	
C0426		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C0601		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C0602		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0605		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0606		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0608-10		ECEA1EKS330	E.CAPACITOR 25V 33U	3	
C0612		ECEA1EKN3R3	E.CAPACITOR 25V 3.3U	1	
C0613		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0614		ECUM1H100DCV	C.CAPACITOR CH 50V 10P	1	
C0615		ECEA1EKN3R3	E.CAPACITOR 25V 3.3U	1	
C0616		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0617		ECUM1H100DCV	C.CAPACITOR CH 50V 10P	1	
C0618		ECEA1EKN3R3	E.CAPACITOR 25V 3.3U	1	
C0619		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0620		ECUM1H100DCV	C.CAPACITOR CH 50V 10P	1	
C0621		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C0622		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0623		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0624		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C0625		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0626		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C0627-29		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C0630		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0631		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C0632,33		ECUM1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C0701		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0702		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0703		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C0704		ECUM1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C0705		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C0706		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C0707,08		ECUM1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C0709		ECUM1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C0710		ECEA1HKS100	E.CAPACITOR 50V 10U	1	
C0711		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0712		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0713		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0714		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C0715		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C0716		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C0717,18		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C0719		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C0720-24		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	5	
C0725,26		ECEA1EKA470	E.CAPACITOR 25V 47U	2	
C0727,28		ECUM1H222KBV	C.CAPACITOR CH 50V 2200P	2	
C0729		ECEA1HKK010	E.CAPACITOR 50V 1U	1	
C0730		ECUM1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C0731		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C0732		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C0733		ECUM1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C0374		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
D0101		MA111	DIODE	1	
D0102		MA111	DIODE	1	
D0401		MA111	DIODE	1	
D0602		MA29WB	DIODE	1	
D0603		MA29TB	DIODE	1	
D0701		MA158	DIODE	1	
D0702-04		MA111	DIODE	3	
D0705		MA736	DIODE	1	
D0706		MA111	DIODE	1	
D0707,08		MA8062M	DIODE	2	
D0709		MA8200M	DIODE	1	
DL0101		ELB4B055	FILTER	1	
IC0101		AN5372S	IC	1	
IC0401		UPD6109G-519	IC	1	
IC0406		BU5781F	IC	1	
IC0407		TC7WU04F	IC	1	
IC0601		AN5379S	IC	1	
IC0602		UPC78L10T	IC	1	
IC0604		UPD4053BG	IC	1	
IC0701		FA7610N	IC	1	
L0102		VLQ0163K120	COIL 12UH	1	
L0103		VLQ0163K150	COIL 15UH	1	
L0401,02		VLQ0319K100	COIL 10UH	2	
L0403		VLQ0319K470	COIL 47UH	1	
L0404		VLQ0319K100	COIL 10UH	1	
L0405		VLQ0472	COIL	1	
L0701		ELC04D002	COIL 33UH	1	
L0702		VLQ0433K820	COIL 82UH	1	
L0703		VLQ0319K100	COIL 10UH	5	
L0704		VLQEL05F101	COIL 100UH	1	
L0705-07		VLQ0319K100	COIL 10UH	3	
L0708		VLQ0433K101	COIL 100UH	1	
L0709		VLQ0433K1R0	COIL 1UH	1	
L0710		VLQ0433K101	COIL 100UH	1	
L0711		VLQ0319K100	COIL 10UH	1	
P0001		VJP1250T	CONNECTOR(MALE) 10P	1	
P0002		VJP1613T	CONNECTOR(MALE) 9P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P0003		VJS2139	CONNECTOR(FEMALE) 16P	1	
P0004		VJP1242T	CONNECTOR(MALE) 2P	1	
P0005		VJP1606T	CONNECTOR(MALE) 2P	1	
Q0101		2SD1819	TRANSISTOR	1	
Q0102		2SC3938	TRANSISTOR	1	
Q0103		2SB1218	TRANSISTOR	1	
Q0121,22		2SD1819	TRANSISTOR	2	
Q0123		2SC3938	TRANSISTOR	1	
Q0601		XN6501	TRANSISTOR-TRANSISTOR	1	
Q0602		XN4601	TRANSISTOR-TRANSISTOR	1	
Q0603		XN6501	TRANSISTOR-TRANSISTOR	1	
Q0604		XN4601	TRANSISTOR-TRANSISTOR	1	
Q0605		XN6501	TRANSISTOR-TRANSISTOR	1	
Q0606		XN4601	TRANSISTOR-TRANSISTOR	1	
Q0701		2SD2177	TRANSISTOR	1	(S)
QR0701		UN2123	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R0101		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R0102		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R0103		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R0105		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R0106		ERJ3GEY0R00	M.RESISTOR CH 0	1	
R0109		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R0110		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R0111		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R0114		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R0115		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R0116,17		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R0118		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R0119		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R0120		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R0121		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R0122		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0127		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R0128		ERJ3GEYJ223	M.RESISTOR CH 1/16W 23K	1	
R0129-31		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	3	
R0132		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R0133		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R0134		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R0135,36		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R0137		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R0138		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R0139		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R0151		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R0152		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0154		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R0155		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R0156,57		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R0158		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
Q0160		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
Q0161		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
Q0162		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
Q0163		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
Q0164,5		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R0401		ERJ3GEJ332	M.RESISTOR CH 1/16W 3.3K	1	
R0402,03		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R0404		ERJ3GEJ102	M.RESISTOR CH 1/16W 1K	1	
R0405		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0406		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R0407		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R0408		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R0409		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R0415,16		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	2	
R0417		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R0419		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R0420		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R0421-23		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	
R0424		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0425		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R0426		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0427,28		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R0429		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R0430,31		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R0432,33		ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R0601		ERJ3GEY0R00	M.RESISTOR CH 0	1	
R0602		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R0603		ERJ3GEY0R00	M.RESISTOR CH 0	1	
R0604		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R0605		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R0606		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R0607,08		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R0609		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R0610		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R0611		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R0612		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R0613		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R0614		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R0615		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R0616		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R0617		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R0618		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R0619,20		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R0621		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R0622		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R0623		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R0624		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R0625		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R0626,27		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R0628		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R0629		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R0630		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R0631		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
R0632		ERJ3GEJ471	M.RESISTOR CH 1/16W 470	1	
R0633,34		ERJ3GEJ152	M.RESISTOR CH 1/16W 1.5K	2	
R0635		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R0637-39		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	3	
R0640		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R0641		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R0642		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R0643		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R0644		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R0645		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R0646		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0701		VSF0014A10	IC PROTECTOR	1	
R0702		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R0703		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R0704		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R0705		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R0706		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R0707		ERJ3GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R0708		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R0709		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0710		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R0711		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R0714		ERJ8GCYJ221	M.RESISTOR CH 1/8W 220	1	
R0715		ERJ8GCYJ331	M.RESISTOR CH 1/8W 330	1	
R0716		ERJ3GEJ682	M.RESISTOR CH 1/16W 6.8K	1	
R0901,02		ERJ3GEJ182	M.RESISTOR CH 1/16W 1K	2	
T0701		ETE13K63AY	TRANSFORMER	1	
VR0101		EVM7JSX30B13	V.RESISTOR 1K	1	
VR0102		EVUF2AF15C54	V.RESISTOR 50K	1	
VR0104		EVM7JSX30B14	V.RESISTOR 10K	1	
VR0105		EVM7JSX30B15	V.RESISTOR 100K	1	
VR0106		EVM7JSX30B23	V.RESISTOR 2K	1	
VR0107		EVUF2AF15B54	V.RESISTOR 50K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR0401		EVM7JSX30B14	V.RESISTOR 10K	1	
VR0402		EVM7JSX30B24	V.RESISTOR 20K	1	
VR0403		EVM7JSX30B52	V.RESISTOR 500	1	
VR0601		EVUE2AF15B53	V.RESISTOR 5K	1	
VR0602,03		EVM7JSX30B53	V.RESISTOR 5K	2	
VR0701		EVM7JSX30B13	V.RESISTOR 1K	1	
VR0702		EVM7JSX30B24	V.RESISTOR 20K	1	
X0101		VSX0422	CRYSTAL OSCILLATOR	1	
X0102		EFCS4R43HW5	CRYSTAL OSCILLATOR	1	
	■	VEP01449A	BACK LIGHT C.B.A.		
			CAPACITORS		
C0801		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C0802		ECQK1183JZ	P.CAPACITOR 100V 0.018U	1	
C0803,04		VCK0092J180	C.CAPACITOR 92V 18P	2	
C0805		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
L0801		ELC10B001	COIL 470UH	1	
P0006		VJP1242T	CONNECTOR(MALE) 2P	1	
P0007,08		VJP1221	CONNECTOR(MALE) 4P	2	
Q0801,02		2SD874A	TRANSISTOR	2	(R)
			RESISTORS		
R0801		VSF0014A06	IC PROTECTOR	1	
R0802,03		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
T0801		ETE15K4AY	TRANSFORMER	1	
	■	VES0413	MECHANISM CONNECTION C.B.A.		
Q1503		ON2170	PHOTO COUPLER	1	
			MISCELLANEOUS		
		VJP1229R	CONNECTOR(MALE) 2P	1	
		VJP1235T	CONNECTOR(MALE) 8P	1	
		VMX1280	SENSOR SPACER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP00H73B	FE HEAD C.B.A.		
			CAPACITORS		
C1501		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C1502		ECKF1H472ZF	C.CAPACITOR 50V 4700P	1	
C1503		VCYD1C103MR1	S.CAPACITOR 16V 0.01U	1	
C1504		ECQV1H333JZ	P.CAPACITOR 50V 0.033U	1	
L1501		VLQEL05F221K	COIL 220U	1	
Q1504		2SC2603	TRANSISTOR	1	
			RESISTORS		
R1503		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
T1501		EIQ7QT007Q	TRANSFORMER	1	
	■	VEK3415	SUPPLY PHOTO TR. C.B.A.		
			MISCELLANEOUS		
		PN158NV	PHOTO TRANSISTOR	1	
		VMD0607	PHOTO TR. HOLDER (L)	1	
	■	VEK3414	TAKE-UP PHOTO TR. C.B.A.		
			MISCELLANEOUS		
		PN158NV	PHOTO TRANSISTOR	1	
		VMD0606	PHOTO TR. HOLDER (R)	1	